PRIVACY IN THE WILD: WHY ANIMALS' INFORMATIONAL PRIVACY MATTERS

By Christopher Wlach*

As data privacy and security come increasingly into focus among lawmakers, regulators, companies, and consumers, concerns about animals' privacy have gone largely unmentioned. This Article examines how both wild and domestic animals have informational privacy interests—that is, interests in protecting information about themselves. The Article discusses three examples of how informational privacy for animals is not merely a theoretical concept but directly relates to animals' broader welfare interests. Finally, this Article discusses why privacy provides a helpful theoretical framework and vocabulary for addressing these animals' interests.

I.	Animal Privacy	103
II.	Animals' Informational Privacy	106
III.	Examples of Sensitive Animal Information	110
	A. Wild Animal Tracking and Location Data	110
	B. Companion Animal Location Data	114
	C. Animal Videos	115
IV.	Why Animals' Informational Privacy Matters	117

I. Animal Privacy

When we think about nonhuman animals' privacy, we may picture a handful of circumstances. Perhaps one's cat likes her litterbox placed behind a screen. Maybe we have seen a gorilla at the zoo retreat to a part of his enclosure hidden from public view. Or we may have watched a documentary where a wild animal seeks seclusion to give birth.²

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¹ The rest of this Article uses the term "animals" as shorthand, but unless the context suggests otherwise the term here means specifically nonhuman animals.

² See, e.g., Am. Dairy Sci. Ass'n et al., Guide for the Care and Use of Agricultural Animals in Research and Teaching 32, 39, 40–41 (4th ed. 2020), https://perma.cc/24VK-XZ2L (accessed Oct. 16, 2022) (noting the behavioral preference for seclusion and privacy when giving birth in hens, poultry, and cattle); Yitzchak Ben Mocha, Why Do Human and Non-Human Species Conceal Mating? The Cooperation

It is unlikely that we think of animals' privacy concerns like those experienced by humans. As commentators have observed, "[a]nimals don't have the same sense of privacy or modesty that we have."3 The natural world, for instance, lacks any simple counterpart for the human concept of nudity or its accompanying social norms and taboos.⁴ Indeed, wild animals spend their lives in the open. While domesticated animals may not live outdoors, they enjoy only as much private space as their caretakers see fit to give them. In some cases, there is no privacy: animals farmed for food—the United States raises and slaughters over 9 billion land animals annually, mostly chickens, pigs, and cows⁵—are born, live, and die experiencing virtually nothing that humans would equate to privacy. Further, animals in zoos exist to be publicly displayed, with many zoos broadcasting 24/7 livestreams of their animal residents. While others keep creatures in enclosures where the animals cannot hide themselves from visitors' eyes.8 In light of these norms, considering whether animals have privacy inter-

Maintenance Hypothesis, 287 Proc. R. Soc. B 1, 4 (2020), https://perma.cc/6GRN-RP8A (accessed Oct. 16, 2022) (noting animal preference for privacy during mating).

³ Wesley J. Smith, Now Animals Have a Right to Privacy?, NAT'L REV. (Apr. 29, 2010, 3:08 PM), https://perma.cc/DM8S-Q73L (accessed Oct 16, 2022).

 $^{4^{&#}x27;}Id$

⁵ Nat'l Agric. Stat. Serv., U.S. Dept. of Agric., Livestock Slaughter 2021 Summary 6 (Apr. 2022), https://perma.cc/4M54-CPBZ (accessed Nov. 10, 2022); Nat'l Agric. Stat. Serv., U.S. Dept. of Agric., Poultry Slaughter 2021 Summary 7 (Feb. 2022), https://perma.cc/R2FC-PA9N (accessed Nov. 10, 2022) (the sum of the slaughtered farmed cattle, calves, hogs, sheep, chickens, turkeys, and ducks reported in these two U.S.D.A. summaries is well over 9 billion animals in 2021).

⁶ For example, farmed egg-laying hens are confined mostly to cages in indoor structures that are tightly packed with up to 200,000 birds and provide no space for individuals to separate from the rest of the flock. See United Egg Producers, Animal Husbandry Guidelines for U.S. Egg Laying Flocks 2 (2017 ed.), https://perma.cc/5FVN-5DR8 (accessed Oct. 17, 2022) (estimating that "85% of the commercial egg production in the U.S. and an estimated 90% of the world's egg production are derived from caged layers"); Y. Zhao et al., Comparative Evaluation of Three Egg Production Systems: Housing Characteristics and Management Practices, 94 Poultry Science 475, 476, 478 (2015), https://perma.cc/4HD3-KE3J (accessed Oct. 17, 2022) (showing a diagram of a conventional cage housing system).

⁷ See, e.g., Lisa Joyner, 19 Live Animal Webcams to Get You Through Lockdown, Country Living (Feb. 11, 2021), https://perma.cc/R55B-VQ78 (accessed Oct. 17, 2022) (providing links for websites hosting continuous live stream camera footage from zoos worldwide).

⁸ See, e.g., Zoo Cage & Nature, Humane Centers & Museum Animal Enclosures, Custom Cages, https://perma.cc/V2NZ-HRUM (accessed Oct. 17, 2022) (selling specialized enclosures for the exhibition of many species of animals for both home display and zoos).

ests may seem like inappropriate "anthropomorphizing," or, put more bluntly, "a load of guff." 10

That said, a lack of the same sense of privacy among animals is no reason to dismiss the fact that animals may still value privacy. By "privacy," this Article means the animal's interest in "be[ing] let alone" to borrow the definition that Samuel D. Warren and Louis Brandeis used in their seminal Harvard Law Review article, The Right to Privacy¹¹—as distinct from simply being free from physical harm or confinement. By analogy, the absence of animal equivalents to certain human rights is no grounds to reject all rights for animals. 12 While human infants and persons with diminished capacity may lack the same sense of privacy that other adult humans may have, we still take their privacy interests seriously. 13 We often accord these individuals heightened privacy protections. For instance, the California Consumer Privacy Act (CCPA) grants additional protections for consumers under the age of sixteen, 14 while the Children's Online Privacy Protection Act (COPPA) provides special privacy safeguards for individuals under the age of thirteen. 15

Although animals may not share all of humans' privacy norms, animals' desire for private space is a widespread phenomenon. ¹⁶ Not surprisingly, many scholars have borrowed the term "privacy" to de-

⁹ Smith, *supra* note 3 (commenting on Brett Mills' article suggesting that animals included in wildlife documentaries have a right to privacy similar to that of humans); Brett Mills, *Television Wildlife Documentaries and Animals' Right to Privacy*, 24 Continuum: J. of Media & Cultural Studies 193, 196 (2010) https://perma.cc/R3FU-R5YN (accessed Oct. 17, 2022).

¹⁰ Carole Cadwalladr, Narwhals Have Tusks, Not Rights, The Guardian (May 1, 2010, 7:06 PM), https://perma.cc/5FAW-D7X6 (accessed Oct. 17, 2022)

¹¹ Samuel D. Warren & Louis D. Brandeis, *The Right to Privacy*, 4 Harv. L. Rev. 193, 195 (1890) (referencing Michigan Supreme Court Justice Thomas M. Cooley's notion that privacy includes "the right 'to be left alone.").

¹² See, e.g., Sue Donaldson & Will Kymlicka, Zoopolis: A Political Theory of Animal Rights 22 (2011) (describing how even rights for humans "are differentially allocated on the basis of capacities and relationships," but that certain base rights exist for all humans and should be recognized as existing for animals, too).

¹³ The Nonhuman Rights Project (NhRP) made a similar analogy in arguing for habeas corpus relief for Happy the Elephant, the Bronx Zoo's lone female elephant. Br. for Pet'r-Appellant 25, Nonhuman Rights Project, Inc. v. James J. Breheny, APL 2021-00087 (N.Y. Ct. of App. 2021) ("Although it is true that certain individuals, like infants and impaired adults, may not be capable of undertaking duties and yet undoubtedly possess certain rights, it is a mistake to ignore the importance of humanity as a core characteristic upon which rights are based."). See also Steven M. Wise, Rattling the Cage: Toward Legal Rights for Animals 88–89 (2000); Gary L. Francione, Animals as Persons: Essays on the Abolition of Animal Exploitation 59 (2008) ("Whatever characteristic we identify as uniquely human will be seen to a lesser degree in some humans and not at all in others.").

¹⁴ California Consumer Privacy Act of 2018, Cal. Civ. Code § 1798.120(c).

¹⁵ Children's Online Privacy Protection Act of 1998, 15 U.S.C. §§ 6501–6506.

¹⁶ See Sally L. Sherwen & Paul H. Hemsworth, The Visitor Effect on Zoo Animals: Implications and Opportunities for Zoo Animal Welfare, 9 Animals 1, 12 (2019) ("A recurring finding across many species is that the ability for an animal to control its exposure to such stimuli can play a major role in how it copes in captivity.").

scribe this animal behavior.¹⁷ Indeed, over fifty years ago, Alan F. Westin—one of the most influential scholars of privacy—devoted the first pages of his 1967 work *Privacy and Freedom* to "Privacy in the Animal World."¹⁸ Westin paralleled the human concept of privacy to the phenomenon that "virtually all animals seek periods of individual seclusion or small-group intimacy," observing that "the quest for privacy is not restricted to [humans] alone."¹⁹ American anthropologist Edward T. Hall similarly explored connections between distance regulation in animals and human privacy.²⁰

Within the animal law field, however, animal privacy interests—as distinct from animal welfare or animal rights—remain relatively underdeveloped as an area of study.²¹

II. Animals' Informational Privacy

Theorists have classified human privacy interests into many types of typologies and taxonomies. ²² Relevant to this Article is the distinction between physical privacy and informational privacy. Physical privacy relates to "the actual objects of privacy that can be directly 'watched' or intruded upon." ²³ For example, bodily privacy involves the protection of one's physical person and spatial privacy involves the protections for one's home and surrounding territory. ²⁴ Whereas physical privacy protects private objects, like one's body, space, communications, and behaviors, informational privacy protects information about those objects. ²⁵

In the legal context, informational privacy manifests itself most notably in the rules around how an individual's personal information

¹⁷ See, e.g., Mills, supra note 9, at 193 (describing how an animal's desire for "privacy" creates challenges for production teams); Ewa Haratym, Animals' Right to Privacy, 85 World Sci. News 73, 73 (2017), https://perma.cc/APK2-Q8CQ (accessed Oct. 17, 2022) (prefacing that the ethical notion that animals have a right to privacy derives from observed animal behaviors whereby social animals establish private spheres).

¹⁸ Alan F. Westin, Privacy and Freedom 8–10 (1967).

 $^{^{19}}$ *Id*. at 10–11.

²⁰ Edward T. Hall, The Hidden Dimension 7–22 (1966). See also Patrizia Paci et al., The Case for Animal Privacy in the Design of Technologically Supported Environments, 8 Frontiers Veterinary Sci. 1, 2–3 (2022) (summarizing articles on animal privacy in early privacy literature as showing that "the need for privacy is a biological universal" among humans and nonhuman animals).

²¹ Haratym, *supra* note 17, at 73. Haratym's article and Mills' articles are exceptions in their express focus on animals' privacy interests. See *supra* note 9 and *infra* note 90. See also Brandon Keim, Should Animals Have a Right to Privacy?, Wired (Jan. 25, 2016), https://perma.cc/7949-MBEU (accessed Oct. 16, 2022) (discussing how government institutions in the U.S. have not formally recognized personhood in nonhuman animals).

 $^{^{22}}$ Bert-Jaap Koops et al., A Typology of Privacy, 38 Univ. Pa. J. Int'l L. 483, 494–503, 566–69 (2017).

²³ Id. at 555.

²⁴ Id. at 498, 500.

 $^{^{25}}$ Id. at 554–55.

is collected and used.²⁶ In the United States, an acronymic assortment of laws protect informational privacy, including the FCRA (Fair Credit Reporting Act), which regulates how a consumer's credit information is collected and accessed;²⁷ HIPAA (the Health Insurance Portability and Accountability Act), which protects and restricts the use of an individual's protected health information;²⁸ and more recently the previouslymentioned CCPA, which regulates businesses' use of consumers' personal information.²⁹

This Article focuses on animals' informational privacy rather than their physical privacy. It does so for two reasons. First, an animal's physical privacy interests are, in practice, closely and sometimes inextricably, linked to the animal's basic interest in a life free from suffering, such that any infringement of an animal's physical privacy is often a mere precursor to some greater, physical harm to the animal. For instance, it is difficult—and verges on the theoretical—to analyze the spatial privacy interests of an egg-laying hen in a factory farm separate from her physical suffering due to intensive confinement. Similarly, analysis of the physical abuse suffered by cows in the dairy industry, who are artificially inseminated with an "A.I. gun" inserted into their vagina to make them produce milk and breed more cows, sill explicitly or implicitly address the attendant bodily privacy infringement.

Second, this Article examines animals' informational privacy for the simple reason that informational privacy is increasingly a focus for humans, among both legal professionals and laypersons. In the past few years, information privacy laws—notably the European Union's

²⁶ David Banisar & Simon Davies, Global Trends in Privacy Protection: An International Survey of Privacy, Data Protection, and Surveillance Laws and Developments, 18 J. Marshall J. Comput. & Info. L. 1, 6 (1999).

²⁷ Fair Credit Reporting Act, 15 U.S.C. §§ 1681–1681x (2022).

 $^{^{28}}$ Health Insurance Portability and Accountability Act of 1996, Pub. L. No. 104–91, 110 Stat. 1936.

 $^{^{29}}$ Cal. Civ. Code. §§ 1798.100–1799.100. Although the CCPA protects the personal information of only "California residents," its application in practice is nationwide, as most large businesses fall within its scope. See id. § 1798.140(c) (defining "business" as used in the statute); id. § 1798.140(g) (defining "consumer" as used in the statute); id. § 1798.140(o) (defining "personal information" as used in the statute).

³⁰ This is not to say that analyzing animals' physical privacy interests would not be useful. To the contrary, doing so may give insight into existing animal laws. As one example, anti-bestiality laws, which criminalize sexual conduct with an animal by a person even without a showing of physical harm, may be further justified on the grounds that they protect an animal's bodily privacy. See Antonio M. Haynes, The Bestiality Proscription: In Search of a Rationale, 21 Animal L. 121, 126–28 (2014) (discussing various rationales for anti-bestiality laws).

³¹ Gustavo M. Schuenemann et al., A.I. Cover Sheaths Improved Fertility in Lactating Dairy Cows, Progressive Dairy (Oct. 31, 2011), https://perma.cc/77SM-2HX8 (accessed Oct. 11, 2022).

 $^{^{32}}$ See, e.g., Is Your Food a Product of Rape?, PETA, https://perma.cc/D8U7-H5S6 (accessed Nov. 4, 2022).

General Data Protection Regulation (GDPR) 33 and the CCPA 34 —have forced businesses and consumers to grapple with informational privacy concerns. These laws have been enacted in response to individuals' growing concerns around how personal information is used and secured. 35

However, while the legal regime protecting humans' informational privacy has expanded significantly, the GDPR and CCPA do not directly protect information about animals, which is perhaps expected. Even if one accepts that animals may have an interest in the privacy of their body or territory, informational privacy may seem uniquely human. And although an animal may possess identifying information (for instance, the animal's biological features or the address of a domestic animal's home), it may be difficult to see how the *animal* has a privacy interest in that information. Rather, one may see that the only privacy interest at stake is that of the humans associated with the animal, the animal's owner or cohabitant.³⁶

Unsurprisingly then, the handful of existing laws restricting the use of animals' information are driven by human concerns. The most widespread example is state laws regulating the disclosure of animal medical records.³⁷ California, for instance, generally prohibits statelicensed veterinarians from disclosing any information about the animals in their care, their human clients, or the care provided to an animal.³⁸ In line with the human-centric focus of these "HIPAA-type

³³ Council Regulation 2016/679 2009 O.J. (L 119) 32 (EU).

³⁴ Cal. Civ. Code §§ 1798.100-1798.192.

³⁵ See KPMG, Corporate Data Responsibility: Bridging the Consumer Trust Gap (2021), https://perma.cc/8R6D-2QGS (accessed Oct. 17, 2022) (describing growing consumer concern about personal data use and privacy); Bree Fowler, Data Breaches Break Record in 2021, CNET (Jan. 24, 2022, 12:31 PM), https://perma.cc/XS3J-J79P (accessed Oct. 17, 2022) (reporting 2021 as setting a new record for the most data breaches in a year following a trend of increased data breaches over the last several years).

³⁶ See, e.g., Delia Langstone, "No Shit Sherlock!" Canine DNA and Policing Public Space, 42 Int'l J. Socio. & Soc. Pol'y 455, 468–69 (2020) (examining the human privacy implications of tracking canine DNA to enforce so-called "pooper scooper laws" and noting that "[c]learly, dogs are not considered to have rights in their own in the respect of privacy; however their human companions do").

³⁷ See Confidentiality of Veterinary Patient Records, Am. Veterinary Med. Ass'n (May 2019), https://perma.cc/F4X8-A6RC (accessed Oct. 17, 2022) (summarizing state laws that protect information in veterinary records).

³⁸ Cal. Bus. & Prof. Code § 4857 (2022). See also Principles of Veterinary Medical Ethics of the AVMA, Am. Veterinary Med. Ass'n (2019), https://perma.cc/V2UL-9JB7 (accessed Oct. 17, 2022) (directing veterinarians to "protect the personal privacy of [human] clients" and "not reveal confidences unless required to by law or unless it becomes necessary to protect the health and welfare of other individuals or animals").

protections," 39 veterinary records may be disclosed if the human owner consents. 40

Other laws restricting disclosure of animals' information are not merely indifferent to animal interests; they affirmatively put these interests at risk. For instance, certain state laws promoted by the animal-agriculture industry—often called "ag-gag" or anti-whistleblower laws⁴¹—criminalize photographing or audio- or video-recording on animal facilities without the property owner's consent.⁴² While these laws may shield farmed animals' information from disclosure, they do not protect the animals. On the contrary, their practical effect is to limit detection of animal cruelty, thereby hampering enforcement of anti-cruelty statutes. Further, they impede consumers' access to information about animal mistreatment, inhibiting market forces from penalizing cruel practices.⁴³

Statutory exceptions to the Freedom of Information Act (FOIA)⁴⁴ and state open records laws have likewise been used by government agencies to deny access to information about animals, including the treatment and location of animals used in research.⁴⁵ If disclosed, this information could help bolster animal protection efforts.

³⁹ Nancy E. Halpern & Elizabeth G. Litten, *HIPAA-Type Protections Are Not Just for Humans – When It Comes to Medical Records, Animals Have Privacy Rights, Too (Part 1)*, Fox Rothschild LLP (Jul. 27, 2015), https://perma.cc/3Z8T-5ENH (accessed Oct. 17, 2022). Besides protecting the privacy of human owners, these laws also provide clear rules for veterinarians to follow when disclosing records, and veterinarians disclosing records in accordance with the statute remain immune from liability. Barb Rand, *Does HIPPA* [sic] *Apply to Animals? Medical Privacy for Animals*, HNI (2016), https://perma.cc/9TFZ-E7N5 (accessed Oct. 17, 2022); *e.g.*, N.Y. Educ. Law § 6714(4) (McKinney 2022) ("A veterinarian who reasonably and in good faith reports or discloses records in accordance with this section shall be immune from liability in the form of damages in any civil or criminal proceeding on account of such reporting or disclosure.").

⁴⁰ E.g., Cal. Bus. & Prof. Code § 4857(1) (West 2022) (requiring "written or witnessed oral authorization" from the "authorized agent of the client" for release of information about veterinary treatment); *Principles*, *supra* note 38 ("The information within veterinary medical records is confidential. It must not be released except as required or allowed by law, or by consent of the owner of the patient.").

⁴¹ See What Is Ag-Gag Legislation?, ASPCA, https://perma.cc/V5G9-RETE (accessed Oct. 17, 2022) (listing state efforts to pass anti-whistleblower laws).

 $^{^{42}}$ E.g., N.D. Cent. Code § 12.1-21.1-.02, 12.1-21.1-04 (West 2021) (making it a class B misdemeanor to, "without the effective consent of the owner . . . [e]nter an animal facility and use or attempt to use a camera, video recorder, or any other video or audio recording equipment").

⁴³ Adam Ozimek, *Ag Gag Laws Are Bad for Markets*, Forbes (Mar 26, 2014, 7:53 PM), https://perma.cc/WQ4F-QA9E (accessed Oct. 17, 2022).

⁴⁴ Freedom of Information Act, 5 U.S.C. § 552(b) (2021).

⁴⁵ Christopher Wlach, Animal Rights Extremism as Justification for Restricting Access to Government Records, 67 Syracuse L. Rev. 191, 209–14 (2017). Open records laws generally require government agencies to make their records available to the public unless an enumerated exception applies. In a somewhat absurd example, in 2015 the New Jersey Department of Agriculture denied a public request for records relating to a dolphin autopsy, on the grounds that New Jersey's Open Public Records Act exempted from disclosure any information related to a medical diagnosis or evaluation. JPat Brown, New Jersey Rejects Request for Dolphin Necropsy Results, Citing "Medical Pri-

In sum, few existing laws implicate animals' informational privacy and, where they do, these laws are motivated by human, not animal, interests.

III. Examples of Sensitive Animal Information

As the previous section shows, protecting an animal's informational privacy does not necessarily promote animal welfare. This lack of welfare protection is not unique to animals: Informational privacy for humans is likewise a double-edged sword. Privacy allows individuals to safeguard sensitive or intimate information, but it also permits criminals to conceal their schemes.⁴⁶

While shielding animal information may sometimes harm animals, preserving animals' informational privacy can often be critical to protecting them. Indeed, it can help protect entire species. As shown in the following three examples, animals' informational privacy is increasingly important for the same reasons that drove the growth of human-centered privacy law. Over 130 years ago, Brandeis and Warren saw "[r]ecent inventions and business methods"—specifically, instantaneous photographs and a media eager to publicize people's private lives—as requiring a new articulation of the "right to be let alone." Technology has developed exponentially since then, and the world of publicly-available information is now bigger and more easily accessible than ever. The impact of these changes on human interests cannot be overstated. It is no surprise that animal interests are affected, too.

A. Wild Animal Tracking and Location Data

Wildlife identification and tracking is one of the most prominent areas where animals' informational privacy becomes relevant. Scientists have used technology to locate and track wild animals since at least the early 1960s, when wildlife biologists experimented with using radio transmitters to track grouse in Cloquet Valley State Forest, Minnesota.⁴⁸ These techniques were soon recognized as invaluable to bet-

vacy", MuckRock (Jan. 11, 2016), https://perma.cc/7R3B-A2TW (accessed Oct. 16, 2022). The rejection was rightly ridiculed, as the rejection would suggest that dolphins have legal personhood while the state law impliedly deals with human individuals. *Id.* Nor would the dead dolphin have any conceivable interest in its autopsy. While the records denial may have ultimately been at the direction of an animal rescue group, the incident nonetheless illustrates that the law regulates access to information about animals based on human interests.

⁴⁶ See Ruth E. Gavison, *Privacy and the Limits of Law*, 89 Yale L.J. 421, 441, 443 (1980) (describing how privacy is desirable because it allows individuals to have private thought, but also dangerous because that private thought is unregulated inherently).

⁴⁷ Warren & Brandeis, *supra* note 11, at 193, 195.

⁴⁸ ETIENNE BENSON, WIRED WILDERNESS: TECHNOLOGIES OF TRACKING AND THE MAKING OF MODERN WILDLIFE 13–14 (2010); What is animal tracking?, MOVEBANK, https://perma.cc/H4CH-JD33 (accessed Oct. 16, 2022) (tracing the modern animal tracking to

ter understanding the lives of animals in the wild. 49 Tracking technology, including using satellites to collect animal location data, is currently a widespread and important tool for researchers studying animal behavior and habitat use. 50

Tracking and location data is not merely of academic interest; it can also help animals. While conservationists often opposed early tracking efforts as physically harmful to wildlife and damaging to nature, textensive and detailed data on wildlife is now seen as an essential first step to protecting wildlife and preserving species. In a 2017 case study on using wireless technology to monitor harbor seals' health and movements, the GSM Association, the industry group representing the interests of mobile operators, argued: To save a species, conservationists need to understand how the animals behave, where they travel and which locations provide food, are suitable for breeding and other critical aspects of their lives. Scientific tracking of animals can also help generate popular interest in wildlife, which in turn may provide funding and other support for wildlife conservation.

With journals and other research available online, often for free, expert data about wild animals and their locations is more available to the public than ever before. Technology has not only allowed non-experts to access this information; it also lets them document and publish their own animal geolocation data. Today, a layperson can identify and geotag an animal in seconds with nothing more than a smartphone, then instantaneously share that information with the world. Cornell University's Merlin Bird ID app, for instance, lets a user upload a photograph of a bird and see a list of possible matches based on the bird's location, drawing on a more than 800-million-entry database of bird observations form Cornell's eBird project. The online birding community, eBird, allows a user to both find heavily-populated bird areas as well as upload and map their own bird sightings.

around 1900, when scientists began systematically tracking birds using bands around the birds' legs).

⁴⁹ Benson, supra note 48, at 27.

⁵⁰ Bindi Thomas et al., Wildlife Tracking Technology Options and Cost Considerations, 38 WILDLIFE RSCH. 653, 653–54 (2011).

⁵¹ Benson, *supra* note 48, at 69–73 (discussing early opposition to tagging and tracking of bears in Yellowstone National Park and Mount McKinley National Park (now Denali National Park & Preserve)).

 $^{^{52}}$ See id. at 136–38 (discussing how Indian tiger conservationists eventually embraced telemetry as a preservation techniques).

 $^{^{53}}$ LPWA: Enabling Extreme Wildlife Tracking, GSM Ass'n 1–2 (2017), https://perma.cc/89YC-B5EG (accessed Oct. 12, 2022).

⁵⁴ Benson, *supra* note 48, at 189–93.

⁵⁵ See David Lindenmayer & Ben Scheele, *Do Not Publish*, 356 Sci. 800, 800 (2017) (describing increasing efforts to improve public access to scientific information).

 $^{^{56}}$ The Story: "What's that bird?", Cornell Univ., https://perma.cc/SK64-ULTA (accessed Oct. 17, 2022).

⁵⁷ About eBird, EBird, https://perma.cc/P73C-6R9B (accessed Oct 17, 2022).

Collectively, eBird and other "citizen science" communities⁵⁸ make publicly available the location data of millions, if not billions, of fauna.⁵⁹

However, making massive quantities of animal location data accessible to anyone with a browser can have negative consequences for animals. In several articles and presentations, Steven J. Cooke, a professor of biology at Carleton University, has urged researchers and the public alike to consider not just the benefits of electronic tagging and tracking technology but also their harmful unintended effects—namely, that "[a]nimal tracking can reveal animal locations (sometimes in nearly real-time), and these data can help people locate, disturb, capture, harm, or kill tagged animals."

Individuals with nefarious motives can access such data in several ways. Modern telemetry gear allows users to track and tag animals themselves, or track animals already tagged by scientists. ⁶¹ Hackers can access location data by breaking into tagging databases closed to the public. ⁶² Unfortunately, legitimate means are often sufficient. As noted above, citizen science platforms make large amounts of data of animal locations available to any computer user. The federal Freedom of Information Act and state open records laws also offer legal access to copious information relating to wildlife. ⁶³

Data misuse is not just a theoretical risk. Poachers, tourists, and others have in fact used animal tracking and location information in attempts to harm or harass animals. For instance, poachers targeted over twenty reptile species just months after the species were described in scientific journals.⁶⁴ Others have used publicly available data to track down rare lizards.⁶⁵ Hunters have exchanged information on how to track wolves' research collars using VHF signals.⁶⁶ In 2013, an unidentified person tried to access location data transmitted by a tracking collar that scientists had placed on an endangered tiger

⁵⁸ E.g., About, iNaturalist (Nov. 4, 2022, 5:35PM), https://perma.cc/3RR8-26ZN (accessed Nov. 4, 2022) (describing iNaturalist, a joint initiative by the California Academy of Sciences and the National Geographic Society, which has a similar functionality to eBird, allowing a user to identify plants and animals).

⁵⁹ About eBird, supra note 57 (location data no longer publicly available for all birds).

⁶⁰ Steven J. Cooke et al., Troubling Issues at the Frontier of Animal Tracking for Conservation and Management, 31 Conservation Biology 1205, 1205 (2017).

 $^{^{61}}$ Steven J. Cooke, For Good or for Bad? Techno-Science and Wildlife Conservation, Slides 12–13, Presentation, New York City Bar Association Animal Law Committee (June 23, 2021) (on file with Animal Law).

⁶² Id. at Slide 16.

⁶³ Id. at Slide 17.

⁶⁴ Lindenmayer & Scheele, supra note 55, at 801.

⁶⁵ *Id*.

⁶⁶ Adam Welz, *Unnatural Surveillance: How Online Data Is Putting Species at Risk*, Yale Env't 360 (Sept. 6, 2017), https://perma.cc/4Z5X-5ZDY (accessed Oct. 14, 2022). Welz also relates an incident where a couple used publicly available location data to locate, harvest, and sell threatened and protected plant species in South Africa. *Id*.

in India.⁶⁷ Parks Canada, the Canadian agency responsible for protecting the country's national parks, banned the use of radio receivers in three of its parks in 2016 after suspected attempts by photographers to track wildlife.⁶⁸ *The New York Times* chronicled similar concerns among birders in 2021 over a Twitter account that posts photographs and location information about rare birds sighted in Manhattan.⁶⁹

These examples highlight how a lack of informational privacy for animals may harm both individual animals and species. Despite the proliferation of privacy and data security laws and norms in recent years, location data about wild animals—the most legally protected species—remains entirely unregulated.

Animal rights and animal welfare organizations have been largely silent on the potential misuse of data about animals. Rather, it has been scientists, researchers, and professionals closely attuned to sensitivities around data that have called attention to the risks that large-scale data collection and data availability pose to animals, particularly wildlife. Such risks are what led two scientists at the Australian National University to publish an article in 2017 titled "Do Not Publish." The article urged researchers to conduct a risk-benefit analysis before deciding whether to publish sensitive information on endangered and rare species. Others in the scientific and academic community, like Dr. Cooke, have echoed this call. Citing similar reasons, citizen science website eBird now restricts users' ability to see location data for "sensitive species," defined as species "for which demonstrable harm could occur from public display of site-level records." Other citizen science websites have taken similar steps.

⁶⁷ Darlene Storm, Cyber-Poaching: Hacking GPS Collar Data to Track and Kill Endangered Tigers, Computerworld (Oct. 15, 2013, 12:57 PM), https://perma.cc/U57R-GWVC (accessed Oct. 14, 2022).

⁶⁸ Robson Fletcher, *Parks Canada Bans Wildlife Photographers from Using Radio Receivers to Locate Animals*, CBC News (Aug. 12, 2016, 3:00 AM), https://perma.cc/AF35-YCMV (accessed Oct. 14, 2022).

⁶⁹ Daniel E. Slotnik, *Twitter Is Turning Birds Into Celebrities and Birders Against One Another*, N.Y. Times (Feb. 15, 2021), https://perma.cc/7AV2-M2D4 (accessed Oct. 14, 2022); *see also* Manhattan Bird Alert (@BirdCentralPark),Twitter https://perma.cc/BA84-F2Y6 (accessed Oct. 14, 2022).

⁷⁰ Lindenmayer & Scheele, *supra* note 55, at 800–01; *but see* Andrew J. Lowe et al., *Publish Openly But Responsibly*, 357 Sci. 141, 141 (2017) (responding to Lindenmayer and Scheele's article and arguing that adequate procedures already exist to securely publish sensitive data about species).

 $^{^{71}}$ See Cooke, supra note 60, at 1205 (describing the negative consequences of publicly sharing tracking information). See also Cooke, supra note 61, at Slide 18 (describing the role of scientists to mitigate negative effects of using publicly-accessible technology when tracking and managing animals).

⁷² Team eBird, Sensitive Species in eBird, EBIRD (Nov. 16, 2017) https://perma.cc/C3VZ-U5VU (accessed Oct. 17, 2022); Help Center, Sensitive Species in eBird, EBIRD (Aug. 22, 2022, 8:50PM), https://perma.cc/C8S8-GR73 (accessed Oct.17, 2022).

⁷³ Sarah Hewitt, Scientists Are Debating Whether Animals Have a Right to Privacy, Vice (June 5, 2017), https://perma.cc/XER3-4YCL (accessed Oct, 17, 2022).

B. Companion Animal Location Data

Informational privacy is not only relevant to wildlife. Companion animals' location data can also raise informational privacy concerns. This Section discusses two examples of how these concerns can arise: through open requests for companion animal information and wearable technology designed for companion animals, so-called "pet wearables."

A handful of cases and regulatory proceedings have discussed whether state open records laws require governmental agencies to disclose the addresses of dogs and cats subject to government licenses. In Feger v. Warwick, where the plaintiff claimed that a shelter had allowed their stolen cat to be adopted, the Appellate Division of the New York Supreme Court upheld a protective order keeping the adoptive owner's name confidential.⁷⁴ Protecting adoptive owners' identities ensures that the owners are not "subjected to harassment or intimidation by prior putative owners," which in turn "promot[es] the placement of animals in homes and prevents the needless euthanizing of otherwise healthy animals."⁷⁵ Privacy concerns about pet-related information have been voiced by other state courts. In Johnston v. Atlanta Humane Society, the Georgia Court of Appeals refused to order disclosure of an animal adopter's identity, also noting that "[t]o allow an earlier owner to learn the identity of an adopter could lead to harassment and limit or curtail adoption so as to lead to . . . [the] destruction" of the animal.76

At least one New York administrative agency has identified similar sensitivities. When a member of the public made a request under New York's Freedom of Information Law (FOIL)⁷⁷ for the NYC Department of Health and Mental Hygiene (DOHMH) to make available "[a]ll the pet licensing data, including breed, owner address, and animal names for New York City," the DOHMH shared the dog names and breeds but withheld owner addresses.⁷⁸ In addition to citing FOIL's personal privacy exemption, the DOHMH referenced *Feger* to note that disclosing the information would have "a chilling effect on the strong public policy of encouraging pet adoption."⁷⁹ The DOHMH further observed that revealing locations of animal owners could endanger "advocates and victims of domestic violence living in safe and/

⁷⁴ Feger v. Warwick, 59 A.D.3d 68, 69, 72–73 (N.Y. App. Div. 2008).

⁷⁵ Id. at 71

 $^{^{76}}$ Johnston v. Atlanta Humane Soc'y, 326 S.E.2d 585, 587–88 (Ga. Ct. App. 1985). See also Lamare v. No. Country Animal League, 743 A.2d 598, 603 (Vt. 1999) (citing Johnston to protect an adopter's identity).

⁷⁷ N.Y. Pub. Off. Law §§ 84–90.

⁷⁸ Pet Licensing Data for New York City, MuckRock, https://perma.cc/RJT5-SBGH (accessed Oct. 14, 2022).

⁷⁹ *Id*

or otherwise undisclosed locations."⁸⁰ While the agency presumably referred to human survivors of domestic violence, the practical effect of their decision was to extend protections over those persons' companion animals, as there is a well-documented link between violence against persons and violence against animals.⁸¹ Collectively, these decisions show a limited de facto protection for companion animals' informational privacy, one derivative of and dependent on the owner's privacy rights.

Pet wearables—devices like the Fi "smart collar"82—may raise similar concerns around exposing animals' locations. While humans generally express fewer privacy concerns for pet wearables than for human wearables,83 both devices have similar capabilities and are able to monitor location, activity, or other data. Although, as of the date of this Article, the author is aware of no documented incidents of pet wearables being used for harmful ends, both devices share a potential for data compromise and data misuse.

C. Animal Videos

In 2017, at least 1.2 million viewers watched on YouTube as April, a female giraffe living in an unaccredited zoo in upstate New York, birthed a calf in an enclosed pen.⁸⁴ While most articles covering the delivery were positive, the event prompted at least one article questioning whether livestreaming the birth infringed upon April's privacy.⁸⁵

April's livestream and online presence are not unique. As mentioned in Section I, several zoos livestream their animal residents around the clock.⁸⁶ Animal social media accounts are wildly popular on

 $^{^{80}}$ Id. See also Domestic Violence Prevention Act, N.Y. Soc. Serv. Law \S 459-H (restricting disclosure of a "general location or specific street address of a structure anticipated to house a residential program for victims of domestic violence").

⁸¹ See generally Allie Philips, Understanding the Link Between Violence to Animals and People: A Guidebook for Criminal Justice Professionals (2014) (describing the recognized link between animal abuse and later abuse and violence to people), https://perma.cc/F5CL-RT7T (accessed Oct. 15, 2022); Resource Materials, National Link Coalition, https://perma.cc/BU43-DD5K (accessed Oct. 15, 2022) (providing various resources documenting the link between animal abuse and violence toward humans).

⁸² Collar, Fi, https://perma.cc/QC5J-A36G (accessed Nov. 6, 2022).

⁸³ Dirk van der Linden et al., Pets Without PETs: on Pet Owners' Under-estimation of Privacy Concerns in Pet Wearables, Proc. on Priv. Enhancing Tech. 143, 158 (2020).

⁸⁴ Rodney Overton, *April the Giraffe Gives Birth as 1.2 Million Watch Online*, CBS 17 (Apr. 15, 2017, 1:21 PM), https://perma.cc/VT4N-F6R3 (accessed Oct. 11, 2022); *Currently Accredited Zoos and Aquariums*, Ass'n Zoos & Aquariums (Sept. 2022), https://perma.cc/WAF6-FFRW (accessed Oct. 11, 2022) (showing that Animal Adventure Park is not accredited by the Association of Zoos and Aquariums).

⁸⁵ See, e.g., Barbara J. King, Does A Pregnant Giraffe Deserve Privacy?, NPR (Mar. 8, 2017, 5:14 AM), https://perma.cc/PN5F-8N76 (accessed Oct. 11, 2022).

⁸⁶ Joyner, supra note 7.

sites like Instagram.⁸⁷ In many cases, this publicity benefits the depicted animals. Natural history films like *Planet Earth* have been shown to increase audience interest and improve attitudes toward environmental issues.⁸⁸ At least one study has shown a positive correlation between zoos and conservation efforts, finding an increase in donations to protect pandas following the broadcast of a panda birth.⁸⁹

Despite these benefits, filming animals implicates informational privacy: film and images can capture and distribute various information relating to the animal, including the animal's identity and location. While Sections III.A and III.B discuss how misusing animal location data may lead animals to physical harm, sociologist Brett Mills has questioned whether filming wildlife infringes a privacy interest of the animal independent of such harm. Mills noted that while film crews often go to great lengths to avoid disturbing or being seen by their animal subjects, they seldom, if ever, reflect on whether filming and publicizing the animal is appropriate. Mills acknowledged that the human concept of privacy may not have an exact counterpart in the wild, but rightly points out that many animals do engage in "secretive" conduct where they manifest a desire not to be seen, particularly during mating, birth, and death.

Mills' articles prompted some derisive responses on publication, with critics claiming that his ideas showed an Academy preoccupied with pointless questions.⁹³ Many animal advocates have likewise doubted whether filming animals without harming them, without the animals even knowing that they are being filmed, raises ethical con-

 $^{^{87}}$ Paige Leskin, The 22 Most Popular Pet Influencers, from Jiff Pom to Doug the Pug, Bus. Insider (Sept. 1, 2019, 6:39 AM), https://perma.cc/8M8V-V4HQ (accessed Oct. 11, 2022).

⁸⁸ See Paci et al., supra note 20, at 2, 6, 7, 10.

⁸⁹ Yuya Fukano et al., *Zoos and Animated Animals Increase Public Interest in and Support for Threatened Animals*, 704 Sci. Total Env't 1, 5–6 (2020) ("The panda gave birth in 2017 and was featured in the mass media, and any increase in donations for the panda might have arisen from the birth and the ensuing publicity, rather than from the animation.").

⁹⁰ See Mills, supra note 9, at 195–96 (suggesting that the necessity for wildlife documentaries to directly observe animals "raises many ethical issues" related to privacy); see also Ian Sample, Wildlife Documentaries Infringe Animals' Privacy, Says Report, The Guardian (Apr. 29, 2010, 1:45 PM), https://perma.cc/M5G6-MY4R (accessed Oct. 10, 2022) (referencing and summarizing Mills' work); Brett Mills, Why We Should Consider the Privacy of Animals, The Guardian (Apr. 30, 2010, 9:53 AM), https://perma.cc/HM22-63CF (accessed Oct. 10, 2022) ("I wondered why it is that [debates about privacy] do not arise where animals are concerned.").

⁹¹ Mills, *supra* note 9, at 195–96.

⁹² Id. at 198–99.

⁹³ See, e.g., Smith, supra note 3 ("It all gets to be too much: Animals don't have the same sense of privacy or modesty that we have. But a university professor—of course!—claims that nature documentaries violate animals' putative 'right to privacy.'"); Cadwalladr, supra note 10 ("This isn't just a meaningless news story, and a spurious piece of research, it's also the biggest publishing scam of them all.").

cerns or warrants any change in filming practices.⁹⁴ When asked whether filming animals in the wild may raise ethical issues, for instance, a representative of People for the Ethical Treatment of Animals (PETA) saw nothing wrong: "If the animals aren't distressed when they're being filmed then . . . 'no harm, no foul.'"⁹⁵

In terms of animal physical welfare, the PETA spokesperson's comment is accurate; there is no physical harm to these animals. Still, Mills' central point—not that filming animals is inherently or necessarily wrong, but that animal privacy interests, at minimum, warrant consideration—is valid. It is difficult to imagine someone claiming "no harm, no foul" about secretly videotaping a human in a private setting, even if the subject never learned of the filming. Our laws reflect as much. Filming or recording humans without their consent or knowledge may violate criminal law⁹⁶ or subject one to civil claims,⁹⁷ even without a showing of any physical or mental harm. Similarly, privacy laws impose penalties for collecting personal data without a privacy notice, even if the data is not actually misused. 98 Outside of the law, a journalist's recording a human subject without consent generally warrants close scrutiny by media companies.⁹⁹ That such behavior is rarely even thought about in the animal context reveals the differing standards against which we measure humans and animals.

IV. Why Animals' Informational Privacy Matters

Rapid technological growth and greater access to technology have brought innumerable benefits to humans and animals while also heightening the privacy concerns raised by Brandeis and Warren more than a century ago. As the examples in Section III show, those concerns are not uniquely human. For the following three reasons, the

⁹⁴ See King, supra note 85 ("Is it more troubling if the animals plainly can see us gazing at them . . . than if they are apparently unaware of a camera trap or video camera trained on them?"); Richard Alleyne, Wildlife Documentaries Invade Animal Privacy Rights, Claims Leading Academic, The Telegraph (Apr. 29, 2010, 5:51 PM), https://perma.cc/GC27-DVJF (accessed Oct. 10, 2022) ("In general, animals do not have any privacy in their natural environment").

⁹⁵ David Derbyshire, Filming Animals in the Wild "Is a Breach of Their Privacy", Daily Mail Online (Apr. 30, 2010, 3:14 AM), https://perma.cc/9VXS-DVCN (accessed Oct. 10, 2022).

⁹⁶ For instance, eleven states generally require that all parties to a phone call or conversation consent to the recording. *Recording Phone Calls and Conversations*, Digital Media Law Project, (Sept. 10, 2022), https://perma.cc/6FUC-S3UX (accessed Oct. 10, 2022).

⁹⁷ See, e.g., Restatement (Second) of Torts § 652B (Am. L. Inst. 1977) ("Intrusion Upon Seclusion. One who intentionally intrudes, physically or otherwise, upon the solitude or seclusion of another or his private affairs or concerns, is subject to liability to the other for invasion of his privacy, if the intrusion would be highly offensive to a reasonable person.").

⁹⁸ E.g., CAL. CIV. CODE § 1798.140(b); Gen. Data Prot. Regul., Art. 83(1-2, 5).

⁹⁹ E.g., Mills, *supra* note 9, at 196–97 (noting that the BBC's editorial guidelines require senior editorial approval to record people without consent).

concept of informational privacy is useful for analyzing and making decisions about how animals' information is used.

First, privacy offers an analytical framework and vocabulary suited for assessing and responding to situations where an individual's interests are negatively affected, even when tangible harm may be hard to articulate. Privacy harms "often involve intangible injuries" whose "downstream consequences . . . are often hard to determine in the here and now."100 Such is the case with animals' geolocation data: this data has the potential to be used for ill ends, though there have been few documented instances in which information on animals' locations has definitively been misused. By using this language, animal advocates may make use of the current heightened attention to privacy concerns, like data breaches and data misuse, to gain additional protections for animals. For instance, a greater focus on information security measures for animal tracking—by government regulators, technology companies, and animal activists—would be particularly helpful for endangered and protected species, as even modest increases in poaching risks could lead to those species' extinction. One might even imagine legislation requiring minimum cybersecurity standards for geolocation data of such species, akin to Massachusetts' 2009 privacy law mandating minimum security standards for businesses that handle personal information of the state's residents.¹⁰¹

Animal informational privacy should also be more closely considered when private companies design companion animal tracking technologies and when consumers use similar devices. As a recent analysis of the subject observes:

Interactive maps and augmented reality applications could be designed to educate the public about the privacy needs of animals living in cities or in particular areas of the countryside, and about the importance of respecting their privacy for welfare and conservation purposes. Human users could be encouraged to refrain from engaging in potentially intrusive or disruptive behaviours when resident animals are engaging in activities that require privacy. ¹⁰²

Second, in the case of companion animals, treating animals' information as potentially sensitive information provides privacy protections for not just those animals but also their human caretakers. This is already reflected in the law to some extent. As discussed above, numerous state laws protect the confidentiality of veterinary records for human-centric reasons, ¹⁰³ while courts have pointed to the risks to both pets and pet owners in denying open records law requests for

¹⁰⁰ Danielle Keats Citron & Daniel J. Solove, *Privacy Harms*, 102 B.U. L. Rev. 793, 796–97 (2022).

 $^{^{101}}$ Mass. Code Regs. 201 C.M.R. 17.01–17.06 (mandating minimum cybersecurity standards for handling personal information of Massachusetts residents).

¹⁰² Paci, *supra* note 20, at 9–10.

¹⁰³ See Confidentiality, supra note 37 (describing state protections of information in veterinary records).

companion animal adoption data. 104 Although no case law or formal guidance on the issue appears to exist, the CCPA and GDPR protections for human individuals likely already mean that some information about an individual's companion animal is protected, at least to the extent that such information could be used to identify that individual. For instance, the CCPA broadly defines "personal information," as any information that "identifies, relates to, describes, is reasonably capable of being associated with, or could reasonably be linked, directly or indirectly, with a particular consumer or household," with "consumer" defined expressly to mean human persons. 105 The GDPR contains a similarly expansive definition of "personal data." ¹⁰⁶ If a companion animal possesses a license number unique to the animal (and therefore also unique to the animal's owner), it is likely that this number would fall within the scope of these definitions. If future privacy legislation or case law expressly addressed the handling and sensitivity of an animal's identifying information, it would likely provide further protections for both companion animals and their owners. This is particularly the case if, as one study suggests, pet wearables are sometimes used by parents to track their children. 107

Finally, simply considering how nonhuman animals have privacy interests independent of physical welfare—interests nearly entirely overlooked today—highlights similarities between species and reveals speciesism in how we treat those similarities. As litigants seek to justify animals' legal personhood and rights to bodily freedom, 108 studying these privacy similarities from a legal perspective may provide further reasons for extending basic protections to our fellow animals. 109

¹⁰⁴ Feger, 59 A.D.3d. at 71; Lamare, 743 A.2d at 604.

 $^{^{105}}$ Cal. Civ. Code § 1798.140(v)(1). "Consumer" means a "natural person who is a California resident," while "household" means "a group, however identified, of consumers who cohabitate with one another at the same residential address and share use of common devices or services." Id. § 1798.140(i), (q). Notably, among the non-exclusive types of personal information listed in the CCPA are "records of personal property." Id. § 1798.140(v)(1)(D).

¹⁰⁶ Council Regulation 2016/679, *supra* note 33, at art. 4(1) ("Personal data' means any information relating to an identified or identifiable natural person").

¹⁰⁷ Van der Linden, supra note 83, at 155.

¹⁰⁸ NhRP brought an ultimately unsuccessful case in New York state court to petition for habeas corpus for Happy the Elephant. NhRP argued that Happy has a common law right to bodily liberty protected by habeas corpus. Ed Shanahan, *Happy the Elephant Isn't Legally a Person, Top New York Court Rules*, The New York Times (June 14, 2022), https://perma.cc/H4K5-26VD (accessed Nov. 8, 2022).

¹⁰⁹ Keim, *supra* note 21 ("David Favre, an animal law scholar at Michigan State University, voiced a resonant note when I asked him about these ideas. Td want to think of it in the sense of a child, he said. Even though they may not have a specific understanding of the idea of privacy, when do we know it's in their better interest to have privacy to protect them from the big bad world around us?" He mentioned the Detroit Zoo's installation of private spaces in their chimp habitat. If you want to take into account their psychological well-being, it could entail the idea of not always having humans look at you.").