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Donald J. Kochan*

**THE MARKET TO ROAM:
USING SHARING ECONOMY PLATFORMS
FOR EXPANDING ROAMING ACCESS
TO LAND RESOURCES**

ABSTRACT

Outdoor recreation is big business. And, the majority of recreationalists do not have their own property upon which to recreate or roam. This article proposes a framework for a market to roam, where technology-facilitated bargaining leads to transfers of roaming rights and the provision of access across private lands. Such a system can borrow from what we know about traditional land use cooperation platforms, together with what we are learning from the sharing economy and its use of technology platforms to assist with matching owners of under-utilized resources with individuals interested in accessing or using those resources. The article engages with property law debates over the capability of the property system to support subdivision of rights, or sticks, in the property rights bundle. New sharing economy mechanisms are demonstrating just how such technologies can make transactions in subdivided property bundles more accessible to owners and users of property. Expanded access to interact with ecological resources while roaming on private lands could be obtained through strong exclusion rights facilitated by innovative technologies and organizational models that help foster greater inclusion through easy and accountable access rights. The article concludes that an exclusion rights-based market to roam is superior for achieving the ecological and other ends progressive property scholars seek when advocating for mandatory access and free roaming rights.

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I. INTRODUCTION

If strangers want to roam on and through the property of others, is it a natural right of the roamer to do so, is it something the law should create as an enforceable right that supersedes an owner's right to exclude others, or is it the kind of right that should be generated only after bargaining in a market-based exchange (like when someone rents your house)? These are the questions this article encounters as it examines a demand for rights to roam juxtaposed against varying proposals to supply it. The debate over roaming rights has so far been dominated by advocacy toward state-based conferral of such rights at the expense of property owners' exclusion powers. This article seeks to balance that debate by asking whether we should instead strive toward laying the groundwork for a "market to roam." Such a market would involve buying and selling access rights to private lands enabling what would otherwise be strangers to those lands to lawfully roam (i.e., hike, walk, wander, meander, or otherwise tour) across another's land. Market mechanisms could develop to facilitate consensual exchanges between property owner-suppliers and roamer-consumers.

Interest in recreation and recreation markets is booming and on an upward trend.¹ According to a February 2018 U.S. Department of Commerce Bureau of Economic Analysis report, "the outdoor recreation economy accounted for 2.0 percent (\$373.7 billion) of current-dollar GDP in 2016."² In addition, the outdoor recreation economy grew 3.8 percent in 2016, compared to growth of 2.8 percent in the overall economy."³ Within this industry, there is an increasingly evident demand for broader access to private and public lands for recreational purposes. This demand includes what might be called "roaming" rights or privileges that would allow individuals not presently entitled by ownership rights to obtain such rights through property rights purchases (by easement or other means), contractual exchange, or even through coercive mandate.

Within a system of governance in which most ownership is defined by principles of private property rights, most often we are talking about boundaries and borders governed by principles of dominion and control.⁴ To the extent we talk

1. U.S. BUREAU OF ECON. ANALYSIS, News Release, *Outdoor Recreation Satellite Account: Prototype Statistics for 2012-2016*, (Feb. 14, 2018, 8:30 AM), <https://www.bea.gov/news/2018/outdoor-recreation-satellite-account-prototype-estimates-2012-2016> [hereinafter 2018 BEA Report]; see also Jodi Peterson, *Latest: Outdoor Recreation Recognized as Economic Contributor*, HIGH COUNTRY NEWS, (Feb. 23, 2018), https://www.hcn.org/issues/50.4/latest-outdoor-recreation-recognized-as-economic-contributor/print_view ("the federal government has recognized outdoor recreation as an official industry. In early February, the Commerce Department announced that outdoor rec contributed more than \$373 billion toward the gross domestic product in 2016, about 2 percent of the total. It's the first time that the GDP report included separate figures on the industry's value.").

2. 2018 BEA Report, *supra* note 1.

3. *Id.*

4. Consider, for example, default common law rule of trespass: "At common law, every person's land is deemed to be enclosed, and landowners have the right to exclude persons from trespassing on private property. Accordingly, every unauthorized, and therefore unlawful, entry into the close, or private property, of another is a trespass at common law, which necessarily carries with it some damage for which the trespasser is liable." 75 AM. JUR. 2D TRESPASS § 18 (2007); but see generally Nicholas Blomley, *The Boundaries of Property: Complexity, Relationality, and Spatiality*, 50 LAW & SOC'Y REV. 224, 252 (2016) (arguing for a less simple understanding of property boundaries given that they must be

about access, we are most often speaking about gates and entry governed by default rules of prohibition overcome only by showings of permissions and purchase. This boundary-based perspective means that access to property usually starts from a position in which private property owners are presumptively in control. Inherent in that system, then, are limits to access by non-owners. In fact, the architecture of the system creates “a perception that public use and private ownership are in conflict and non-compatible.”⁵ Consequently, it is not surprising when our system of private property frustrates those who want to enjoy some of the land seemingly monopolized by landowners, especially when they feel like these barriers fence off nature itself or make publicly valuable resources inaccessible.⁶ The desire to recreate and roam without borders exists. How we reconcile that desire with intentional tensions of a private property system becomes part of the policy struggle engaged in this article.

Of course, everything is more nuanced in a legal system than it may immediately seem when a debate first reveals itself. Our system has never fully recognized a strict dichotomy between exclusion and access in absolutes, with varied forms of mandated and customary access rights existing throughout the states. As Professor Robert Ellickson opined, property systems regularly become “a major battleground” on which the conflict “between individual liberty and privacy on the one hand and community and equality on the other” is fought.⁷ Nonetheless, as this article will detail, there has been a heavy thumb on the scale in these battles toward exclusion rights for private property owners.

The manner in which we juggle interest in public access to resources and property rights has been an area of longstanding debate, and questions regarding how we achieve recreational access in particular have become increasingly present in these discussions. Outdoor recreation has seen such an upsurge that Professor Carol Rose, for example, has focused on calling it “a socializing institution” that “now seems to support the ‘publicness’ of some property.”⁸

Those types of claims undergird the beliefs of some that the public should have the automatic privilege to access private lands through a mandated “right to roam.” Progressive property scholars, for example, increasingly discuss the “right to roam” as an exemplar of socially beneficial policies that do not rely on and/or

understood in conjunction with their role in identifying spatiality and social relationality—i.e. “boundaries do not stand outside the relations that constitute them and the geographies in which they are situated”).

5. Neil D. Hamilton, *Rural Lands and Rural Livelihoods: Using Land and Natural Resources to Revitalize Rural America*, 13 *DRAKE J. AGRIC. L.* 179, 200 (2008).

6. See, e.g., Jerry L. Anderson, *Comparative Perspectives on Property Right: The Right to Exclude*, 56 *J. LEGAL EDUC.* 539, 545 (2006) [hereinafter Anderson, *Comparative Perspectives*] (“Many of us may have felt a similar frustration trying to reach some allegedly “public” resource—perhaps a beach or a beautiful mountain—and being confronted with a solid barrier of private property that limited access.”).

7. Robert C. Ellickson, *Property in Land*, 102 *YALE L.J.* 1315, 1345 (1993).

8. Carol Rose, *The Comedy of the Commons: Custom, Commerce, and Inherently Public Property*, 53 *U. CHI. L. REV.* 711, 779 (1986).

reject the supremacy of the right to exclude.⁹ They argue that mandating inclusion is often socially optimal, including generating opportunities to access ecological and other land resources that would otherwise be off limits to others if strong private property exclusion norms were enforced.¹⁰ Why, however, must we assume that markets and strong exclusion norms are incapable of also generating roaming rights with similar beneficial effects? Professors Jonathan Klick and Gideon Parchomovsky have posited that “nowhere are the fault lines between [property exclusion essentialism advocates and progressive property theorists] clearer than in the context of the right to roam.”¹¹

Yet, as Ken Ilgunas, author of *Trespassing Across America* and an advocate for governmentally-mandated rights to roam, laments in a 2016 op-ed, “there has never been a mainstream conversation about [the right to roam]. There are a few advocates in law journals, but none have made a splash outside of their field.”¹² Ilgunas is correct that the debate deserves more attention, but this article contends that the conversation also needs to widen the perspectives it invites. The existing discussion is limited in audience, as Ilgunas recognizes, and it is also limited in scope. Too often that conversation is dominated by those seeking to push for coercive mechanisms limiting the right to exclude in order to accomplish satisfaction of roaming preferences. An alternative dialogue would consider embracing the right to exclude as a means of facilitating inclusion-based and access-sensitive exchange. This article seeks to expand that conversation, especially by injecting more discussion about market-based approaches to supplying roaming opportunities. It concludes that time-tested contractual and property law mechanisms can be used by innovators and entrepreneurs to develop ways for landowners to offer access rights to consumers interested in roaming across their lands. Moreover, we should find ways to make the law friendly to such innovation, developing legal mechanisms that support and encourage such a market to roam.

In Part II, this article sketches a blueprint from which legal institutions might launch a project of assistance that can guide a roaming market into existence. It posits that—whether through contract forms or property forms—a market to

9. Eric R. Claeys, *Labor, Exclusion, and Flourishing in Property Law*, 95 N.C. L. REV. 413, 462-65 (2017) (“Progressive property works often cite rights to roam as an example of progressive property in action.”).

10. See, e.g., Jonathan Klick & Gideon Parchomovsky, *The Value of the Right to Exclude: An Empirical Assessment*, 165 U. Pa. L. Rev. 917, 921 (2017) (“the ambition of the progressive property movement is unabashedly normative: it calls for the furtherance of such values as civil responsibility, environmental stewardship, life, human flourishing, autonomy, freedom, and ‘individual and social well-being’” and stating that they “refer to progressive property scholars as the ‘pro-access camp.’”); John A. Lovett, *Progressive Property in Action: The Land Reform (Scotland) Act 2003*, 89 NEB. L. REV. 739, 745 n.17 (2011) [hereinafter Lovett, *Progressive Property*] (discussing the connection land access brings between users and land virtues, including engagement with land’s complex “ecological and environmental characteristics”); see also generally Heidi Gorovitz Robertson, *Public Access to Private Land for Walking: Environmental and Individual Responsibility as Rationale for Limiting the Right to Exclude*, 23 GEO. INT’L ENVTL. L. REV. 211, 260-62 (2011).

11. Klick & Parchomovsky, *supra* note 10, at 921.

12. Ken Ilgunas, *This is Our Country. Let’s Walk It*, N.Y. TIMES (Apr. 23, 2016), https://www.nytimes.com/2016/04/24/opinion/sunday/this-is-our-country-lets-walk-it.html?_r=0.

roam could develop in which private property owners and roamers efficiently bargain for roaming rights with the aid of new technology.

Part III describes the evidence of demand for greater access to private lands and explains ways in which both the markets and governmental actors have responded. Part IV discusses the growing body of progressive property scholarship that draws on the right to roam in its efforts to demonstrate the capacity of the state to facilitate inclusion opportunities that advance human flourishing.

In Parts V and VI, this article challenges some of the assumptions of progressive property scholars and others that roaming rights can only be accomplished by coercive commands. The social utility from access and interaction with ecological resources could be obtained through strong exclusion rights facilitated by innovative technologies and organizational models that help foster greater inclusion through easy and accountable licensing. As Jonathan Adler explains, “Environmental problems . . . are often essentially ‘property rights problems’ and are best redressed by the extension, definition, and defense of property rights in environmental resources.”¹³ These Parts describe some of the ways that new technology is expanding opportunities for property owners to choose inclusion, drawing substantially on insights from the market forces driving the sharing economy¹⁴ and the platforms that facilitate these new categories of commerce.

Part VII focuses on the legal mechanisms by which tradeable roaming rights might be created – principally contracts, existing property forms like easements and licenses, and potential new property forms. Part VII concludes that contracts and existing property forms should be able to do the work necessary to provide the legal mechanisms for roaming rights exchange. Nonetheless, even if new property forms would be necessary, it should not be problematic. So, while Part VII discusses the literature on limitations on property forms and the reasons for prohibiting the development of customized property interests, this literature leaves room for the evolution and adaptability of property forms—especially when new technology makes such new forms available without negative impacts on third party information costs and other standardization principles. When coupled with the understanding of the emerging technologies discussed in Part VI, there is room to believe that it is possible to segregate roaming rights sticks within the property rights bundle.

Part VIII describes some of the operational kinks that will need to be worked out if a market to roam is to emerge. It discusses subjects like owner liability to roamers, the applicability and limitations of recreational use statutes to ease such concerns, the need to manage adverse possession risks, public safety

13. Jonathan H. Adler, *Back to the Future of Conservation: Changing Perceptions of Property Rights and Environmental Protection*, 1 N.Y.U. J. L. & LIBERTY 987, 1021 (2005) (citing Peter J. Hill & Roger E. Meiners, *Property Rights and Externalities: Problems and Solutions*, in WHO OWNS THE ENVIRONMENT? xi (Peter J. Hill & Roger E. Meiners eds., 1998)).

14. Although it is a concept without exact definition, the “sharing economy” can be identified “inclusively to mean an ‘economic model where people are creating and sharing goods, services, space and money with each other.’” Stephen R. Miller, *First Principles for Regulating the Sharing Economy*, 53 HARV. J. LEGIS. 147, 150 (2016).

concerns, and other areas that should be on the checklist of any up and coming entrepreneurs who will begin to design a market to roam.

After explaining what is possible within the law to facilitate a market to roam, Part IX explores some of the advantages of market-based roaming over the compelled access that has been the preferred means to date to accomplish roaming goals. It defends a market-oriented approach to achieving roaming values as comparatively superior to a less accountable coercive mandate that would require private owners to cede portions of their exclusion rights by granting permission rights to strangers to roam without consent or compensation. Not only does market-based roaming increase access (including to ecological resources) without diminishing property rights or depriving owners of their gatekeeping powers, it also has the added benefit of superior monitoring and accountability measures.

Instead of facilitating roaming by constricting exclusion rights—the result of most proposals to inject roaming opportunities in the United States and elsewhere¹⁵—this article concludes in Part X that the desired ends of roaming facilitation can be reached by actually embracing exclusion with its logical outgrowths and extensions. Discussions regarding how best to protect ecological resources often create “tensions between liberal values and environmental protection.”¹⁶ This article challenges the notion that these must be mutually exclusive sets of protected concerns. Because the consensus is that the United States is unlikely to any time soon, if ever, adopt roaming legislation like that seen in other countries,¹⁷ to the extent advocates wish to reach a point where greater inclusion for roaming is possible, they should welcome a conversation about an approach that achieves those ends through market forces.

II. WHAT IS THE MARKET TO ROAM? A BRIEF SKETCH

“Roaming” is a word that generally captures the idea of walking, hiking, or even wandering across land, sometimes defined as “to travel purposefully unhindered through a wide area” or “to go from place to place without purpose or direction.”¹⁸ As used in the literature on property rights, roaming access debates

15. Gideon Parchomovsky & Michael Mattioli, *Partial Patents*, 111 COLUM. L. REV. 207, 224-25 (2011) (explaining that roaming rights in the United Kingdom and Norway are an example of a place where the “exclusion rights of real property owners have been contracted in various ways in response to changing social needs.”).

16. Adler, *supra* note 13, at 990.

17. Jerry L. Anderson, *Britain’s Right to Roam: Redefining the Landowner’s Bundle of Sticks*, 19 GEO. INT’L ENVTL. L. REV. 375, 432 (2007) [hereinafter Anderson, *Britain’s Right to Roam*] (“Short of a revolution in American thinking about the right to exclude, however, it is difficult to imagine serious modifications to the right to exclude anytime soon.”); John D. Echeverria, *From a “Darkling Plain” to What?: The Regulatory Takings Issue in U.S. Law and Policy*, 30 VT. L. REV. 969, 978 (2006) (“Great Britain recently adopted national legislation affirming the public’s ‘right to roam’ across unenclosed, rural lands. For better or for worse, such a measure would be dead on arrival constitutionally in the United States, at least for the foreseeable future.”); Robertson, *supra* note 10, at 260-62 (concluding that the exclusion tradition in the United States makes roaming mandates unlikely); Ilgunas, *supra* note 12 (recognizing “a national right to roam law is unlikely” but, short of that, advocating for “ways that state governments can create better green and coastal walking spaces now.”).

18. *Roaming*, MERRIAM-WEBSTER, <https://www.merriam-webster.com/dictionary/roam> (last visited Sept. 9, 2018).

usually focus on whether individuals may do this roaming across private or public lands, the surface fee of which the roamer does not presently own.¹⁹ Presumably, “roaming” rights—whether established by private agreements or by governmental mandate—could be defined to include access alone (such as for hiking, walking, or wandering) or to also include a variety of activities as permissible once these lands are accessible (including camping, hunting, picking, swimming, or foraging). Most of the roaming access advocacy, from progressive property scholars and other outdoor enthusiasts, operates on perceptions of the necessity of state intervention in markets to bring about the availability of roaming rights. This article’s primary purpose is to open up discussion which challenges that presumption. Based on law and technology’s track record at developing and adapting to provide access to other things (home, apartments, cars, tools, etc. in the new sharing economy), there is good reason to believe that the advent of new technology should make possible exchange of roaming “sticks” in the property rights bundle or contractual arrangements between willing owners and willing roamers that can expand roaming access without losing the valuable benefits of robust exclusion rights in our property system. As a launching point, it seems useful to begin this Article’s discussion by dedicating this part to a very brief synopsis of the project contemplated. In other words, this part provides a sketch of how a market to roam might work.

A market to roam can best be realized by learning from and adapting the architecture of existing business models in the sharing economy (such as the use of technological platforms to connect willing owners of goods or property with those desiring but lacking access to goods or property, the reputational quality control mechanisms such platforms facilitate, and the trustworthy and customized contracting and exchange forms) to the roaming enterprise. Increasingly, members of society are becoming familiar with homesharing platforms apps like Airbnb that connect willing property owner hosts with willing non-owners looking for a short-term place to stay.²⁰ When we think of a market to roam, we can imagine platforms emerging that facilitate similar connections.²¹ Willing property owner hosts could supply their land, in part or whole, as available for roaming. Individuals who want to roam across property could seek out a platform where the willing hosts list their properties and where the roamers go to obtain the rights to roam across the land of a stranger—just as guests using Airbnb obtain the rights to sleep in the stranger’s bed. Much like Airbnb offers a temporary residence to a demanding public in a home or Uber offers a ride in a car—each involving access to assets that the consumer of those services could not afford or simply does not want to buy outright—a roaming market would allow recreationalists to obtain rights to access

19. See generally, e.g., Anderson, *Britain’s Right to Roam*, *supra* note 17.

20. See generally *infra* Part VI.

21. Orly Lobel, *The Law of the Platform*, 101 MINN. L. REV. 87, 106-107 (2016) (describing the basic features of platforms, including how platforms utilize technology (including smart phones, internet, algorithms, rating data, information compilation, and the like) to dramatically reduce the transaction costs that a Coasean model traditionally understood to be barriers to many exchanges).

vast amounts of land that those roamers could not afford or would not want to buy.²² We might call it the Uberization of trails.²³

Ultimately, though, platforms for the market to roam will undoubtedly generate their own unique characteristics to match the unique product to unique demands. For example, a roamer usually needs rights to cross more than one property at a time in order to have a good hike or a valuable experience, unlike the Airbnb or Uber customer who is likely to rent only one house or one car at a time. Thus, the roaming platforms may need to add in some multi-property coordination components. On this, perhaps the architects of roaming platforms could borrow features and learn lessons from platforms like Spotify²⁴ or ASCAP,²⁵ where customers buy a license to access the work of all of the artists in the platform rather than just one at a time, thereby overcoming insurmountably high transaction costs of negotiating with every individual participant. Perhaps the property owners who agree to place their properties as available for roaming could be treated like the artists who allow their music to be available for streaming and where the end-user negotiates only with the platform as the intermediary compiler, or assembler, of the properties. The artists win too because they need not negotiate with each consumer, but instead set upon terms with the platform to compensate them based on the level of consumption of their art. In a roaming market, property owners might benefit by registering their property with a platform rather than dealing with every roamer.

However it would be run, the essence of a market to roam is to generate roaming rights through consensual exchange. Individual property owners would opt-in to a property law and contract law governance regime that manages roaming rights and transfers rather than have their exclusion rights limited through requirements to allow strangers to stomp through their land.

Property owners or the platforms that manage their rights could offer roaming for free or at a price. Individual roamers could purchase general licenses that work with all participating property owners or could purchase individual licenses that might be triggered by some geo-tag alert that would be received on a smartphone or other mobile electronic device when the roamer hits a boundary. When a roamer is pinged that they are entering into a new property, they might be

22. *Id.* at 110 (explaining that for many products it is cheaper to buy access than to buy the product).

23. *Id.* at 89 (describing how platforms create the possibility of “the Uberization of everything.”).

24. *What is Spotify*, SPOTIFY, https://support.spotify.com/is/using_spotify/the_basics/what-is-spotify/ (last visited Sept. 9, 2018) (describing Spotify as “a digital music, podcast, and video streaming service that gives you access to millions of songs and other content from artists all over the world. Basic functions such as playing music are totally free, but you can also choose to upgrade to Spotify Premium. Either way, you can:

Choose what you want to listen to with Browse and Search.

Get recommendations from personalized features . . .

Build collections of music.

See what friends, artists, and celebrities listen to.

Create your own Radio stations.”).

25. *About ASCAP*, ASCAP, <https://www.ascap.com/about-us> (last visited Sept. 9, 2018) (ASCAP “license[s] over 11.5 million ASCAP songs and scores to the businesses that play them publicly, then send[s] the money to [its] members as royalties” and it uses “cutting-edge technology to process over one trillion performances every year.”).

asked to enter into a new transaction or register their presence. Roamers might buy bundles or packages in advance from a platform that allows them to roam across multiple properties in a single trip, thereby minimizing the disruption of engaging in new transactions at every boundary crossing.

Technicians could create protective features as well. If roamers could be tracked and monitored by having their GPS location or other information transmitted to owners through a signal generated on the roamer's mobile device, for example, liability for damages could be more accurately traced and assessed with lower identification costs. If, for example, we know that roamer X was at location Z when a fire started there, we could identify the responsible party. We could create a responsible roaming regime in which roamers are required to better internalize the costs of their actions and be held responsible for damage to property, encouraging the roamers to be good stewards as they roam (and holding them responsible if they are not). By harnessing what we know about the sharing economy and the utility of platform technology, a market to roam seems achievable.

III. EVIDENCE OF DEMAND, AND SOME RESPONSE WITH SUPPLY BY MARKETS AND BY GOVERNMENT MEANS

Past access-based innovations can serve as models that should make us optimistic about the feasibility of this article's proposals. We should develop a framework for a system for licensing or otherwise granting roaming rights that will borrow from what we can learn from these traditional land use cooperation platforms. We can also learn from the sharing economy and its use of technology platforms, discussed later, to assist with matching owners of under-utilized resources with individuals interested in using those resources.

A number of market and governmental moves signal the existence of consumer demand for more opportunities to access private property for roaming and other recreational purposes. If those signals are accurate, wise innovators should begin to find ways to generate a market-based supply of roaming rights. Under normal market conditions, economic theory predicts that when a demand for a product emerges, the supply follows. Sometimes innovation is required to figure out how to generate the product and satisfy the demand. Oftentimes that involves technical innovation. Sometimes, however, legal innovation is required as well—to overcome existing legal hurdles or to develop legal instruments that can clear the way for economic markets to create and offer the products being demanded, for example. In fact, the way the law reacts will often influence the shape of the market products available.

Outdoor recreation is big business. And, the majority of recreationalists do not have their own property upon which to recreate or roam. Matching roamers with property that can be used to satisfy their recreational preferences is one of the challenges at the foundation of this article. Existing regimes for the supply of access rights demonstrates there is a demand. The question remains whether the market or government mandates should be used to satisfy that demand. There are emerging market-based exchange mechanisms that are already working to expand access opportunities. If the market starts to generate new vehicles for access agreements, there are likely individuals who would engage in that marketplace as

consumers of the roaming rights products. Still, governments, principally states, have also mandated rights of access, structured their laws with rebuttable presumptions of access rights, or initiated programs that help coordinate access agreements between private property landowners and members of the public.

A. Limited and Targeted Supply by Market Products

The excitement for using market-based techniques—particularly sharing economy ideas—to achieve resource protection and conservation-related purposes includes, but is not limited to access rights. Conservation advocates are learning that they can “rent” the private property of owners whose property can serve as vehicles for conservation of resources—asking the owners to aid and abet conservation by both restraint and commission.²⁶ “Using the Airbnb Model to Protect the Environment” was the eye-catching title for a December 2017 article in the *New York Times* describing this phenomenon.²⁷ Sometimes, for example, they might figuratively “rent” the land as if it were an Airbnb, asking a farmer not to cut forests; or, they might pay to enlist the owner in activities that generate species assistance, such as by paying for the creation of wetlands along migratory bird paths.²⁸ All of these show a willingness for conservation-minded individuals to embrace sharing economy ideas and market solutions when they are presented, and an increasing willingness to innovate with market mechanisms in mind as means for achieving ends often perceived as reachable only by command and control.

Turning to access initiatives specifically, though, we see a number of examples emerging where innovators are finding ways to coordinate agreements through market mechanisms between property owners and outsiders. Beyond academia and progressive property scholars, activists and outdoor enthusiasts too are pushing for greater recreational access rights—sometimes through government mandates, sometimes through public/private cooperative approaches, and sometimes through pure market bargaining. Some advocate a general right to roam,²⁹ while others take more targeted approaches. The Surfrider Foundation,³⁰

26. Seema Jayachandran, *Using the Airbnb Model to Protect the Environment*, N.Y. TIMES (Dec. 29, 2017), <https://www.nytimes.com/2017/12/29/business/economy/airbnb-protect-environment.html> (describing “market-based” strategies to “rent” protected land during periods when migratory birds need it most for safe passage or when threatened species need it for breeding; including, for example, paying rice farmers to flood their fields when they might otherwise be dry—or to make payments to individuals willing to make conservation efforts, such as to farmers who agree to refrain from cutting in certain forests.).

27. *Id.*

28. Jonathan Wood, *Sharing Economy Conservation: Why Technology Solves Complex Environmental Problems Better than Regulation*, PROP. & ENV'T RES. CTR. (Feb. 15, 2018), <https://www.perc.org/2018/02/15/sharing-economy-conservation-technology-solves-complex-environmental-problems-better-regulation/> (describing how technology is making conservation efforts more accessible and efficient, including explaining how the sharing economy model has worked for the Nature Conservancy’s migratory bird creation of “pop-up wetlands” and the use of smart phones to crowd source for information on where the birds are sighted to know what areas to “rent” or make payments to flood).

29. See, e.g., KEN ILGUNAS, THIS LAND IS OUR LAND: HOW WE LOST THE RIGHT TO ROAM AND HOW TO TAKE IT BACK (2018); KEN ILGUNAS, TRESPASSING ACROSS AMERICA 117-121 (2016).

for example, has campaigns advocating and obtaining enlarged coastal access including across private lands in addition to its agenda for preserving ocean and coastal quality.³¹ Similarly, there are a number of examples of innovative projects to assemble trail networks where private organizations act as intermediaries.³² Byron Kahr, for instance, explains that West Virginia's "Hatfield-McCoy system of ORV [off-road vehicles] trails and open riding areas represents the most successful assemblage of ORV riding opportunities on private lands."³³ He also highlights the arrangement in Vermont where there is a "public-private hybrid approach" in which the non-profit Vermont Association of Snow Travelers "administers the snowmobile routes in the state, eighty percent of which cross over private land."³⁴ Each of these programs demonstrates that assembly of trails across multiple properties is possible, despite potential anti-commons and transaction cost concerns.

Shawn Regan at the Property and Environment Research Center (PERC) explains that sharing economy technology is already starting on a small scale to facilitate greater outsider access to private Western lands.³⁵ With a push, and so long as there truly is a demand for roaming rights, we should assume that these technologies could be applied on a broad scale to accomplish the type of market to roam envisioned in this article.

Regan aptly notes that the "challenge is to build a platform that creates trust between users," just as we see with Uber, Airbnb, and the like.³⁶ He outlines

30. *Beach Access*, SURFRIDER FOUND., <https://www.surfrider.org/initiatives/beach-access> (last visited Sept. 9, 2018) ("Surfrider Foundation works with decision-making bodies to evaluate each beach access issue that arises. We also pursue litigation to ensure full and fair access to all beaches, for all people[.] . . . actively fighting for beach access in places where private property owners have cut off long-standing publicly used coastal access."); see also *Policy on Beach Access*, SURFRIDER FOUND., <https://www.surfrider.org/pages/policy-on-beach-access> (last visited Sept. 9, 2018) ("Whereas, Surfrider Foundation views beach access as a universal right. Surfrider Foundation works to secure universal, low-impact beach access for all people. Surfrider Foundation's members live, work, visit, and recreate on and near the world's beaches, and are impacted by beach access limitations.").

31. See Ilgunas, *supra* note 12 ("The Surfrider Foundation, a nonprofit that advocates better beach access, reports that several states, including Maine, Massachusetts and Virginia, have favored the interests of beachfront property owners by limiting public access to shorelines. Hawaii and Oregon, on the other hand, have granted generous public access to their coasts.").

32. Richard M. Hynes, *Posted: Notice and the Right to Exclude*, 45 ARIZ. ST. L.J. 949, 977-78 (2013) ("It is harder to dismiss the complaint that private organizations can (and do) play the role of intermediary. For example, hunters form clubs that lease hunting land, and hikers form organizations that create trails.") (citing, *inter alia*, Ian Munn et al., *Hunter Preferences and Willingness to Pay for Hunting Leases*, 57 FOREST SCI. 189 (2011), <http://www.foa.org/PDF/CI1107b.pdf>); *Our Strategic Plan*, RIVANNA TRAILS FOUND., <http://www.rivannatrails.org/Default.aspx?pageId=952616> [<https://web.archive.org/web/20150216174739/http://www.rivannatrails.org/page-952616>] (describing a 21-mile loop trail network created in Charlottesville, VA).

33. Byron Kahr, *The Right to Exclude Meets the Right to Ride: Private Property, Public Recreation, and the Rise of Off-Road Vehicles*, 28 STAN. ENVTL. L.J. 51, 102 (2009).

34. *Id.* at 103.

35. Shawn Regan, *Bringing the Sharing Economy to Private Land*, PERC REP. 39, (2015), https://www.perc.org/wp-content/uploads/old/pdfs/Bringing%20the%20Sharing%20Economy%20to%20Private%20Land_Regan_0.pdf.

36. *Id.*

the type of technological extension that would be necessary to accomplish all sorts of access to private lands:

Imagine if, with a few taps on your smartphone, you could rent access to a local property, book a fishing pass to a neighbor's spring creek, or lease short-term hunting access on a nearby ranch. Landowners could enroll, define certain conditions and limits, and gain assurances that their property would be respected. In the process, they could diversify their incomes and have greater incentives to conserve their land.³⁷

Regan provides examples of private platforms and associated apps in areas like land sharing for camping access and hunting.³⁸ Through "Airbnb-like websites,"³⁹ companies like Land-Apart,⁴⁰ Hipcamp,⁴¹ and Tentr⁴² connect campers with private lands where they can set up camp and allows owners to list their properties as available to share with campers. Rod, Gun, and Bow is a new company that touts its brand of matching hunters with leasing opportunities on private lands as "Your land-sharing matchmaker."⁴³ South Park Fly Fishers is an example of a platform connecting fly fishermen with fly fishing experiences on "premier Colorado ranches."⁴⁴ Whether it be a room in your house or a route across your backyard, similar principles apply. It is not hard to envision, with the right

37. *Id.*

38. *Id.* (describing companies called "Hipcamp" and "Rod, Gun, and Bow").

39. Sarah Gilman, *Private-land Camping Startups Offer Alternative to Public Lands: Airbnb-like Websites Spring up in Response to Overcrowded Public Campsites*, HIGH COUNTRY NEWS, (July 20, 2015), <https://www.hcn.org/issues/47.12/private-land-camping-startups-offer-alternative-to-public-lands>.

40. LANDAPART THE LAND SHARING PROGRAM, <https://www.landapart.com/home> (last visited Sept. 7, 2018) (website explains that: "Landowners share their lands. You book and enjoy them. Ramble responsibly.").

41. HIPCAMP, <https://www.hipcamp.com/about#our-story> (last visited Sept. 7, 2018) ((website proclaims service as a way to "Find Yourself Outside;" and, "Hipcamp is everywhere you want to camp. Search, discover and book ranches, farms, vineyards, nature preserves & public sites for camping across the U.S."). Hipcamp explains its services as follows: "Our overall mission is to get more people outside and, more specifically, to inspire the next generation of people who are passionate about exploring AND protecting our lands. Spending time outdoors has proven health benefits and fosters a deeper connection to the awesome, wild world out there. And we're firm believers that people will only protect what they connect to and care about. Getting more people outside really starts with access; access to land, but also to information about that land. We don't think finding somewhere to camp should be such a time-consuming, convoluted and confusing process, which is why we started Hipcamp. We are committed to making getting outside fun, easy, and as simple as selecting what, when and where you want your camping experience to be. Need a campsite by the beach next weekend where you can bring your dog? We got you!)."

42. For the home page for Tentr, see <https://www.tentr.com/>. In their promotional materials, Tentr represents explains: "We aim to take the hassle out of camping so that you can enjoy your time outdoors. We connect landowners with campers seeking to explore the great outdoors." See <https://www.youtube.com/watch?v=u2r6MJ-48U0> (Tag line associated with Tentr promotional video).

43. ROD GUN AND BOW LLC, <https://rodgunandbowllc.wordpress.com/about/> (last visited Sept. 7, 2018).

44. SOUTH PARK FLY FISHERS, <https://www.southparktrout.com/> (last visited Sept. 7, 2018).

technical support, a business model that launches a market to roam. If you build it, they will roam.

While some companies have emerged to offer their assembly services and sub-licensing of trail access,⁴⁵ the same is also accomplished by organizations of like-minded recreationists. For example, in late December 2017, the Idaho State Snowmobile Association announced that it “has carved out a deal with a company owned by two Texas billionaires to groom trails on a portion of their private land near New Meadows, allowing access . . . for snowmobilers to forest and state lands otherwise blocked by the Wilkses’ property.”⁴⁶ Likewise, Peter Kenlan describes one example of a cooperative access agreement where “private groups [who] have taken the initiative to develop relationships with landowners to secure access,” such as the Maine Snowmobile Association’s umbrella oversight of a variety of local clubs’ bargained-for “network of 14,000 miles of trails, 95% of which are on private property.”⁴⁷ Momentum is definitely building to find innovative ways to match access demands with access supply, and the market is already generating products that capitalize on individual preferences for greater and more flexible recreational access.

B. Limited Supply by Governmental Products and the Push for More

Evidence of demand for access rights is also revealed by examining existing statutes, governmental programs, and legal definitions of the scope of property rights that already attempt to generate access or limit rights of exclusion. In other words, exclusion is not absolute under the law and does not even start as the default assumption of rights’ assignment in all instances. Mandated access rights are not unknown in the United States. Public beaches, traditional Native American sites, and other limited areas trigger the imposition of implied rights of access.⁴⁸ In many states, unenclosed private property is open to certain recreational activities unless the private property owner clearly “opts out” by excluding

45. Kahr, *supra* note 33, at 102.

46. Rocky Barker, *Texas Billionaires Open Up Some Land Access, let Idaho Snowmobilers Groom Trails*, IDAHO STATESMAN, Dec. 19, 2017, <http://www.idahostatesman.com/outdoors/recreation/article190549684.html>.

47. Peter H. Kenlan, Comment, *Maine’s Open Lands: Public Use of Private Land, the Right to Roam, and the Right to Exclude*, 68 ME. L. REV. 185, 193 (2016).

48. See, e.g., *Matthews v. Bay Head Improvement Ass’n*, 471 A.2d 355, 365-66 (N.J. 1984). For a sampling of articles discussing actual or proposed specialized public access rights in the United States, see also Darla J. Mondou, *The American Indian Agricultural Resources Management Act: Does the Winters Water Bucket Have a Hole In It?*, 3 DRAKE J. AGRIC. L. 381 (1998); Mary Christina Wood, *The Tribal Property Right to Wildlife Capital (Part II): Asserting a Sovereign Servitude to Protect Habitat of Imperiled Species*, 25 VT. L. REV. 355 (2001); Kristen A. Carpenter, *A Property Rights Approach to Sacred Sites Cases: Asserting a Place for Indians as Nonowners*, 52 UCLA L. REV. 1061 (2005); Claudia Braymer, Comment, *Improving Public Access to the Adirondack Forest Preserve*, 72 ALB. L. REV. 293 (2009); Becky Lundberg Witt, *Towards a Human Right to Food: Implications for Urban Growing in Baltimore City, Maryland*, 43 FORDHAM URB. L.J. 405 (2016); Alfred L. Brophy, *Property and Progress: Antebellum Landscape Art and Property Law*, 40 MCGEORGE L. REV. 603 (2009); Hamilton, *supra* note 5; Kahr, *supra* note 33; Kenlan, *supra* note 47.

individuals, such as through “no trespassing” postings and fencing.⁴⁹ Given that many advocates are still pushing for a mandated right to roam, it seems they must find existing programs insufficient for achieving access. Advocates for market-based approach to roaming will find current governmental programs either unsupporting of, or perhaps even interfering with, the creation of market-based roaming approaches. Nonetheless, the existing legal standards and programs discussed below are something that reforms designed to generate more roaming access must deal with—building upon them or remodeling around or through them. This article can only begin to provide some examples of such existing access measures, but should help develop a basic understanding of the present nature of access rights more generally.

First among the legal regimes facilitating access are “posting” laws. A number of states have laws that allow the public to access unenclosed but private lands for “recreational purposes” (with varying definitions of what constitutes “recreation”)⁵⁰ unless and until the private property owners “post” markings asserting their rights to exclude (such as fencing, no trespassing signs, designated paint signals regarding borders and owner assertion of exclusion rights, etc.). Put another way, in many states the failure to post creates an implied permission to the public to recreational access across private lands.⁵¹ Depending on the state, this requirement that property owners must opt to expressly assert their exclusion rights before they may seek full enforcement of those exclusion rights varies in scope and application.⁵²

For example, the failure to post exclusion notices may affect the designation of trespass and the immunization of intruders under criminal trespass, civil trespass, or both. In Maine, for example, there is an understanding of the concept of “permissive trespass.”⁵³ As another example, California makes posting necessary to give notice before holding one liable for criminal trespass.⁵⁴

The access rights granted by states are often associated with rights to travel or access to public resources (like water and wildlife) that exist on private land. For example, South Dakota has a complex system of open access and hunting rights along section lines even across private property.⁵⁵ In most states, the use of

49. See generally Robin Cheryl Miller, *Effect of Statute Limiting Landowner's Liability for Personal Injury to Recreational User*, 47 A.L.R. 4th 262 (1986).

50. *Id.* See also generally Kahr, *supra* note 33; Kenlan, *supra* note 47 (surveys of the recreational use statutes across jurisdictions).

51. See, e.g., Kenlan, *supra* note 47, at 195 (citation omitted) (describing the Maine Supreme Judicial Court's view of permissive use: “Maine has a tradition of acquiescence in access to nonposted fields and woodlands by abutters and by the public. Pursuant to our open lands tradition, recreational use of unposted open fields or woodlands and any ways through them are presumed permissive[.]”).

52. Kahr, *supra* note 33, at 83 (“State statutes requiring posting on unenclosed land in order to trigger criminal trespass violations are common, although they are not uniform in form or in wording.”).

53. See, e.g., Kenlan, *supra* note 47, at 192-93, 196-98 (describing the diversity of access protections throughout Maine under permissive trespass doctrines in unposted areas).

54. See CAL. PENAL CODE § 602 (West 2008) (“no trespassing” signs required and must be regularly and conspicuously placed).

55. Tom Simmons, Comment, *Highways, Hunters and Section Lines: Tensions Between Public Access and Private Rights*, 2 GREAT PLAINS NAT. RESOURCES J. 240 (1997) (describing the open public access and hunting rights along section lines and their relationship with R.S. 2477 federal rights of way).

navigable waterways often trumps private owners' rights to exclude as well, because of their inherent service value to the public and its enjoyment of public resources.⁵⁶

With certain rights like hunting, some states go beyond the opt-in posting requirement and grant hunters positive rights to hunt on unenclosed lands even in the face of postings or other efforts by the private landowners to exclude them.⁵⁷ For example, Kenlan describes this outcome in South Carolina by judicial interpretation⁵⁸ and in Vermont by constitutional decree.⁵⁹ Other states treat hunting access as special and start from a default rule that hunters shall have rights of access, but nonetheless give property owners opportunities to assert certain exclusion rights.⁶⁰ Anderson summarizes the "posting" rules for hunting across the states and their effects:

State statutes in the United States governing public access to private land focus mainly on hunting rights. About half of the states have enacted "posting" rules, which generally allow access to private land for hunting, without the landowner's specific permission, unless the land has been posted with "no trespassing" signs. The other states require hunters to obtain permission from landowners before hunting and do not require posting. In at least some of these states, the statutory requirement of posting to prohibit access could apply to recreational access as well as to hunting, which would allow a hiker to presume permission to walk across unposted lands. In most of the states that require posting, however, hunting is given a preferred status over public access for other purposes.⁶¹

Hunting's preferred status makes it a unique category of access, but the government response to that demand shows that statutes that require property owners to allow access—by coercive adjustment of rights rather than consensual agreement—are not unknown in the United States. Some individuals are able to gain inclusion rights outside of bargaining.

Government programs like hunting access statutes—where the government facilitates the matching of demanding-hunters with landowners willing to provide access—are interesting examples of state-led facilitation and

56. See *Friends of Thayer Lake LLC v. Brown*, 53 N.E.3d 730 (N.Y. 2016) (citation omitted) (recognizing public easements for waters that are navigable in fact and that "provide practical utility to the public as a means for transportation, whether for trade or travel"). See also generally Maureen E. Brady, *Defining "Navigability": Balancing State-Court Flexibility and Private Rights in Waterways*, 36 CARDOZO L. REV. 1415 (2015) (discussing the rules of public access to navigable waterways).

57. See Kenlan, *supra* note 47, at 190.

58. See, e.g., *id.* (citation omitted) (explaining a case from South Carolina where "the state supreme court refused to find a hunter liable for trespass when the hunter openly defied the landowner's order to keep off" because of "the hunter's positive right to hunt on unenclosed land").

59. *Id.* ("In Vermont, the state's constitution specifically protects" a hunter's right to access unenclosed land.); VT. CONST. CH. II, § 67 ("The inhabitants of this State shall have liberty in seasonable times, to hunt and fowl on the lands they hold, and on other lands not inclosed, and in like manner to fish in all boatable and other waters (not private property) under proper regulations, to be made and provided by the General Assembly.").

60. Kahr, *supra* note 33, at 84 ("Many states have adopted specific trespass rules with respect to hunters entering private land, and generally, such statutes require landowners to take specific affirmative steps to keep hunters off of their land.").

61. Anderson, *Britain's Right to Roam*, *supra* note 17, at 422.

coordination between property owners and groups of strangers interested in accessing property. For example, Montana's block management program ("BMP") creates a coordinated system that allows hunters to hunt on multiple landowners' properties through a single bi-lateral registration system.⁶² Hunters who register are allowed to access and remove game from private property without burdensome individualized negotiation, provided certain use restrictions negotiated between the landowner and the Montana Fish, Wildlife, and Parks department are satisfied.⁶³ Kahr describes a similar program in Kansas which he argues—while advocating for its use as a potential model for greater ORV access—represents "a successful approach to balancing the interests of private landowners and hunters seeking access to open lands."⁶⁴ Kansas's "'Walk-In Hunting Access Program,' . . . has enrolled over one million acres of private land across the state, resulting in a steep increase in available hunting opportunities."⁶⁵ The program starts with an exclusion-based default and offers incentives for property owners to choose to grant permission.⁶⁶ Further the Kansas program "operat[es] with the presumption that lands are off-limits to hunters until a landowner affirmatively opts into the program."⁶⁷ The state continues its role as facilitator by providing maps and information "documenting all available private lands" thus helping licensed hunters overcome barriers they might face in identifying willing owners.⁶⁸ While each of these examples of government coordinated programs show the possibility of such measures to increase public access, Professor Neil Hamilton, an agricultural law professor who has studied various natural resource access issues, especially in rural areas, notes that "there are only limited examples of coordinated programs to promote public use of private land."⁶⁹

Other types of access fall into a category that might be called "government administered" rather than "government-coordinated." For example, as a result of the 2014 Farm Bill, the U.S. Department of Agriculture's Natural Resource Conservation Service administers the Voluntary Public Access and Habitat Incentive Program (VPA-HIP), which "is a competitive grants program that helps state and tribal governments increase public access to private lands for wildlife-dependent recreation, such as hunting, fishing, nature watching or hiking."⁷⁰ As the program description continues, "State and tribal governments may submit proposals for VPA-HIP block grants from NRCS. These governments provide the

62. MONT. CODE ANN. § 87-1-266 (2011).

63. *Id.*; see also *State v. McGregor*, 398 P.3d 241 (Mont. 2017) (holding individual liable for trespass for hunting on private land without obtaining permission by complying with Block Management Area procedures).

64. Kahr, *supra* note 33, at 101.

65. *Id.*

66. *Id.* at 101-102 (citations omitted).

67. *Id.* at 101.

68. *Id.* ("Licensed hunters receive maps from the state documenting all available private lands, thus reducing the informational burden on both hunters and landowners for determining where hunting is permitted.") (citations omitted).

69. Hamilton, *supra* note 5, at 200.

70. U.S. DEP'T OF AGRIC., *2014 Farm Bill- Voluntary Public Access and Habitat Incentive Program- NCRS*, <https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/farmbill/?cid=stelprdb1242739>.

funds to participating private landowners to initiate new or expand existing public access programs that enhance public access to areas previously unavailable for wildlife-dependent recreation.”⁷¹ Administering payments to change private landowner behavior is one way to attempt to accomplish public policy goals. However, it is a far more complicated and bureaucratic means as compared to facilitating private bargaining by embracing broader markets for access.

But some of the features of these government programs could provide lessons for engineers of access markets. Policymakers should examine these and similar arrangements to consider whether parts of their structures and incentives could serve as inputs for developing a market to roam. Especially helpful could be those programs that coordinate property owners opting-in, with those seeking access using a centralized registration and information repository for obtaining permissions. Platforms in a market to roam might serve similar centralized and transaction cost-reducing functions. Roamers and property owners could arrange for contracts, licenses, or property rights exchanges that grant access and roaming privileges through third party platforms which manage the exchange.

IV. RESTRICTING THE OPERATION OF THE RIGHT TO EXCLUDE: PROGRESSIVE PROPERTY THEORY AND MANDATED ACCESS FOR ROAMING

Our property system involved legislative and judicially-imposed limitations on the right to exclude to facilitate certain competing policies,⁷² including to serve “human values” (like access to services for migrant farm workers in the famous opinion in the *State v. Shack* case).⁷³ Many of these policies lead to limited, mandated access rights for particular purposes. But broad-scale access rights generally—and broad-scale roaming rights particularly—have not been mandated in the United States. In contrast, several countries have recently made the choice to legislate rights to roam that mandate access and limit private property owners’ rights to exclude.⁷⁴ Recently, such statutes granting rights to access and to roam across private property have been popping up in jurisdictions around the globe, particularly in Europe.⁷⁵ Generally speaking, these statutes seek to prevent individual property owners from denying access to or otherwise excluding those who want to roam across their property, provided the roaming meets certain conditions and the roamer abides by certain rules.⁷⁶ This compelled inclusion has been heralded by progressive property scholars and mandated-roaming advocates as an example of sound public policy to reshape the property system toward social obligations with inclusion norms. Furthermore, it proves that

71. *Id.*

72. *See supra* Part III.

73. *State v. Shack*, 277 A.2d 369, 372 (N.J. 1971) (“Property rights serve human values. They are recognized to that end, and are limited by it.”).

74. *See, e.g.*, JESSE DUKEMINIER ET AL., *PROPERTY* 856 (8th ed. 2014) (describing the basics of the right to roam and recent scholarship on the same).

75. *Id.*

76. *Id.*

the right to exclude is not necessary for a well-functioning system of property ownership.⁷⁷

Within progressive property theory, exclusion norms are characterized as furthering a vision of property that is atomistic, monopolistic, and isolationist. Roaming, however, is often romanticized as the exercise of natural liberty where wandering is the “essence of empowerment”⁷⁸ for which fences and boundaries are impediments.

A number of European statutes have been cited by American progressive property scholars as models that could be used to increase roaming rights in the United States by governmental mandate. For example, the Countryside and Rights of Way Act of 2000 (“CRWA”) in Great Britain is relatively recent legislation developing statutory rights to roam consistent with the progressive property platform.⁷⁹ Professor Jerry Anderson—whose scholarship has been influential in identifying the connection between progressive property theory and roaming rights—explains what is happening with the CRWA:

Britain’s recent enactment of a “right to roam” in the Countryside and Rights of Way Act 2000 [CRWA] provides a fascinating study of how the right to exclude may be modified to accommodate public needs without unduly impacting the interests of the private landowner. [CRWA] classifies private land that contains mountains, moors, heath, or downland as “open country,” and requires landowners to allow the public to roam freely across these lands. Thus, [CRWA] opens up millions of acres of private land to public access, without compensating the landowners for this limitation on their right to exclude. As a result, the law represents a dramatic shift in the allocation of the bundle of sticks.⁸⁰

One of the ways that the CRWA (and many of the European roaming initiatives) can be distinguished from roaming reform movements in the United States is in its effort to repair past acts perceived as wrongs. The CRWA is

77. Ilgunas, *supra* note 12 (“our understanding of property and our unquestioned devotion to the right to exclude may need to be reconsidered in an age when America is increasingly characterized by growing populations, sprawling cities and suburbs, and far less green space.”).

78. See, e.g., Gil Grantmore, *The Phages of American Law*, 36 U.C. DAVIS L. REV. 455, 488 n.212 (2003). Grantmore provides the following sources on the purposes of roaming and wandering: “Real liberty lies in wandering.” *Cf.* Saenz v. Roe, 526 U.S. 489 (1999); Shapiro v. Thompson, 394 U.S. 618 (1969). This popular slogan, which adorns many travel posters in France and Québec, appears to be derived from the following passage by Isabelle Eberhardt: “Un droit que bien peu d’intellectuels se soucient de revendiquer, c’est le droit à l’errance, au vagabondage. Et pourtant, le vagabondage, c’est l’affranchissement, et la vie le long des routes, c’est la liberté.” 1 Isabelle Eberhardt, *Écrits sur le Sable* 27 (Marie-Odile Delacour & Jean-René Huleu eds., 1988). Herewith a freely rendered English translation: “A right that very few intellectuals bother to demand is the right to roam, to wander. Yet wandering is the essence of empowerment, and the life of the road is liberty itself.” *Id.* See also Anderson, *Britain’s Right to Roam*, *supra* note 17, at 378 (discussing Britain’s CRWA against the backdrop of the “romantic vision of a rural walk [as] enshrined in English literature”).

79. Countryside and Rights of Way Act 2000, c. 37 (U.K.).

80. Anderson, *Britain’s Right to Roam*, *supra* note 17, at 377-78; see also Anderson, *Comparative Perspectives*, *supra* note 6, at 546-50; Federico Cheever, *British National Parks for North Americans: What We Can Learn from a More Crowded Nation Proud of Its Countryside*, 26 STAN. ENVTL. L.J. 247 (2007); Jess Kyle, *Of Constitutions and Cultures: The British Right to Roam and American Property Law*, 44 ENVTL. L. REP. 10898 (2014).

designed to restore general rights to roam that were claimed to have existed in the past, but that have been extinguished by enclosure orders.⁸¹

Sweden, too, has developed limits on landowners' exclusion rights.⁸² Cornell Law Dean Eduardo Peñalver describes this as "the so-called allemansrätt, or 'everyman's right' to roam over the countryside in ways that do not damage the land, intrude on privacy, or interfere with the uses to which the owner has chosen to put her land."⁸³

Another example of roaming laws in Europe is the Land Reform (Scotland) Act of 2003. Professor John Lovett has identified its fit with the goals of "progressive theorists" of property law—a camp he identifies as "those scholars who call for American property law to embrace a social obligation norm aiming to maximize human flourishing at all times and who welcome a more contextualized property law decision making process focused on producing relationships of dignity, fairness, and respect."⁸⁴ Lovett continues by explaining why these scholars are supportive of efforts to create greater protections for roaming rights:

These "progressive" or "social obligation" theorists picture individuals, and by extension property owners, as fundamentally dependent on human community. In moments of conflict, this interdependence requires property law decision makers to determine whether a property owner's interest in autonomy and control over her asset must be sacrificed, sometimes without compensation or strict reciprocity, to satisfy a non-owner's need for access to that asset or the community's interest in control over use or disposition of that asset.⁸⁵

Professor Gregory Alexander provides similar sentiments in his own history of Scotland's traditions regarding roaming and its modern right to roam under the 2003 Scottish Land Reform Act.⁸⁶ Alexander explains that roaming rights contribute to a "socially democratic culture."⁸⁷ Although sympathetic to the idea of roaming rights for this and other progressive reasons, Alexander cautions that "the point must not be pushed too far, for under some circumstances shared public spaces can be sites of social divisions."⁸⁸

Lovett's study was prescriptive as well, outlining a framework for transforming our exclusion-centric property law regime in the United States.⁸⁹

81. Anderson, *Britain's Right to Roam*, *supra* note 17, at 378-79.

82. REGERINGSFORMEN [RF] [CONSTITUTION] 2:15 (Swed.) <http://www.riksdagen.se/globalassets/07.-dokument--lagar/the-constitution-of-sweden-160628.pdf>; *see generally* Kevin T. Colby, *Public Access to Private Land—Allemansrätt in Sweden*, 15 *LANDSCAPE & URB. PLAN.* 253 (2015) (explaining why "Allemansrätt is an example of land 'ownership' of a different kind").

83. Eduardo M. Peñalver, *The Illusory Right to Abandon*, 109 *MICH. L. REV.* 191, 206 n.60 (2010).

84. Lovett, *Progressive Property*, *supra* note 10, at 742-43; *accord.* John A. Lovett, *The Right to Exclude Meets the Right of Responsible Access*, 26 *PROB. & PROP.* 52 (2012) (surveying developments in European roaming laws); Brian Sawers, *The Right to Exclude from Unimproved Land*, 83 *TEMP. L. REV.* 665 (2011).

85. Lovett, *Progressive Property*, *supra* note 10, at 744-45.

86. Land Reform (Scotland) Act, 2003 (A.S.P. 2).

87. Gregory S. Alexander, *The Sporting Life: Democratic Culture and the Historical Origins of the Scottish Right to Roam*, 2016 *U. ILL. L. REV.* 321, 323 (2016).

88. *Id.*

89. Lovett, *Progressive Property*, *supra* note 10, at 816-17.

Lovett concludes his work by explaining what such a transformation would mean and the values he hopes it could accomplish:

[I]t is practically possible for a modern, democratic nation committed to the rule of law, the protection of private property, and open markets to create, if it wants, a property regime that to a considerable extent replaces the ex ante presumption in favor of the right to exclude that has come to be taken for granted in the United States with an equally robust, but rebuttable, ex ante presumption in favor of access.⁹⁰

Lovett describes his project as demonstrating that “it is possible to create a property access regime that does not depend on further boundary drawing and a narrow conception of the access rights that the public might enjoy on private land.”⁹¹ The Scottish roaming rights example, he contends, proves the viability of establishing a legal regime that is “open-ended in texture and that aims to inspire a new relationship between landowner and non-owner access takers, a relationship based on mutual respect for the rights of the other,” and that “can, despite some unavoidable uncertainty costs, incorporate and seek to inspire virtues of responsibility, humility, and mutual regard.”⁹² Mandated roaming rights are intended to serve a very bold agenda.

Of course, one must ask whether relationships can really be inspired when they are forced. It may make more sense to encourage innovation that generates consensual roaming exchanges which seem far more likely to develop relationships between owner and roamer in a way that forced socialization cannot.

Anderson, for one, represents the views of progressive property scholars in endorsing these types of legislation. He laments the absence of a right to roam as a costly consequence of the American preference for an “absolute right to exclude.”⁹³ One of the goals that Anderson claims will be advanced in societies that embrace a mandated right to roam is greater access to ecological resources, along with enhanced means of transportation, mental health improvement, better physical health, a connection to history and culture, and a more developed sense of community.⁹⁴ On the matter of breaking down property rights to provide ecological amenities to the public, Anderson states:

Roaming rights and footpaths enable the walker to reach places that are not yet spoiled by urban development, from which a road would detract. A hike may lead to a beautiful vista, or a mountain stream, surrounded by natural beauty unblemished by concrete and steel. Walking through the scenery, such as hiking on a footpath through a meadow of grazing sheep, puts you in the middle of the beauty, and makes you a part of it, rather than simply observing it through a car window. The effect is therefore more like a three-dimensional image than a picture

90. *Id.*

91. *Id.*

92. *Id.*

93. Anderson, *Britain's Right to Roam*, *supra* note 17, at 379.

94. *Id.* at 413-17.

postcard. Moreover, the slow pace allows for a more intimate observation of the wildlife and plants that abound in the countryside.⁹⁵

This idea of roaming as facilitating the connection with nature—said to be cut off through owners’ rights to exclude—is a primary justification advanced for the assertion of mandated roaming rights.⁹⁶

When reading the dominant current literature on roaming, it mostly comes from progressive property scholars who see great benefit in its proof “that the composition of the bundle [of property rights] is not necessarily immutable, and that changes may be desirable to better reflect contemporary society’s needs and values.”⁹⁷ As Anderson contends, “Britain’s right to roam represents a rather dramatic re-allocation of one of the sticks in the property rights bundle from the landowner to the public.”⁹⁸ He continues, that “property rights must evolve and the right to roam reminds us that, in the end, the recognition of the private owners’ rights involves a trade-off with public interests that should not be ignored.”⁹⁹ This progressive property agenda counsels that “the right to roam represents a welcome return to a more interrelated, functional approach to property”¹⁰⁰ that Americans should consider embracing.¹⁰¹ Progressive property scholars’ policy position rests on the idea that mandated roaming rights are just one of “numerous ways . . . to allocate the bundle of sticks without abandoning the idea of private property in general.”¹⁰² After all, Anderson claims, it is “possible to construct a strong argument in favor of modifying the formalistic notion of an absolute right to exclude.”¹⁰³

The vast majority of the existing literature on roaming is supportive of the statutory schemes that limit the right to exclude as a way to facilitate what the advocates have identified as preferred social values of property. In other words, most existing work on how to increase roaming access has trusted the government as the mechanism for achieving more of it and all but ignored potential market alternatives.

Moreover, there have been few scholars challenging the assumptions in the mandates-based progressive property literature on roaming. Among these is Professor Eric Claeys.¹⁰⁴ One problematic claim in the pro-government roaming literature, Claeys contends, is the assumption that owners must be forced to allow roaming in order to realize the activity.¹⁰⁵ Claeys challenges this by explaining

95. *Id.* at 413.

96. Of course, as later parts of this article will reveal, if it is the access that increases such a connection, then there should be equal (or superior) benefits if the access can be accomplished through alternative means—like with voluntary transfers of rights. *See infra* Part IX.

97. Anderson, *Britain’s Right to Roam*, *supra* note 17, at 430.

98. *Id.*

99. *Id.*

100. *Id.*

101. Ilgunas, *supra* note 12 (“If we want to create more safe and scenic walking spaces, we should look to Europe’s roaming laws for ideas on opening up our countryside.”).

102. Anderson, *Britain’s Right to Roam*, *supra* note 17, at 431.

103. *Id.*

104. Claeys, *supra* note 9, at 462-65.

105. *Id.*

(while not advocating any proposal) that the government might choose to “buy or condemn scenic paths” to achieve similar purposes without as much disruption on traditional notions of property rights.¹⁰⁶

Professors Jonathan Klick and Gideon Parchomovsky have used roaming statutes as a way to quantify the value of the right to exclude by measuring the devaluation of property when roaming interferes with an owner’s exclusion rights.¹⁰⁷ They provide a detailed history of the right to roam and a useful survey of the literature on the right to exclude.¹⁰⁸ While they caution that their work “should not be interpreted as a flat-out rejection of the right to roam,”¹⁰⁹ their findings nonetheless show that the passage of the right to roam statutes in England and Scotland have had a negative effect on real estate prices—even when these forced rights to roam could be characterized as relatively “minor” invasions of the right to exclude (because they were far less intrusive than contemplated alternatives).¹¹⁰ Their findings support the conclusion that owners and potential transferees do place a value on the level of exclusion rights available as part of a particular ownership package for a parcel.¹¹¹

Thus, the progressive property scholarship demonstrates an existing demand for more roaming rights yet seems to assume that a market with strong exclusion norms is incapable of supplying it. This article’s primary hope is that the sketch of a market to roam will open up that presumption to greater questioning. Furthermore, the progressive property scholarship provides evidence of demand for roaming rights—thereby supporting the conclusion that there may in fact be customers for a market to roam if it emerges.

V. THE RIGHT TO EXCLUDE AS EMPOWERING INCLUSION AND ACCESS

The assumptions about exclusion that exist in progressive property theory fail to capture the richness of the exclusion concept. Inclusion need not be coerced and mandated at the expense of the right to exclusion. Indeed, protecting exclusion is a way to empower an owner to supply even more opportunities for inclusion to those who make marketplace demands for it.

Allowing stranger non-owners access to roam freely without prior permission across private property seems antithetical to our intuitive notions of what it means to own something. Norms have developed, at least in the United States, that give us a sense of it being wrong to enter the property of another

106. *Id.* (“[I]t does not necessarily follow that mandated roaming rights are desirable. A government could facilitate the same flourishing-related activities by buying or condemning scenic land and paths, and converting them into parks or trails managed by the government or a public delegate.”).

107. *See generally* Klick & Parchomovsky, *supra* note 10.

108. *Id.*

109. *Id.* at 922.

110. *Id.* at 961. *See also* Claeys, *supra* note 9, at 463 (discussing the Klick and Parchomovsky study and summarizing that “there is at least some evidence that roaming rights chill land use. Swedish farmers have had to confront roamers to stop them from picking crops, and other landowners have complained that roaming rights have interfered with their opportunities to put their land to more active uses.”).

111. Klick & Parchomovsky, *supra* note 10, at 961.

without permission.¹¹² These intuitions are representative of an understanding that the system of property is grounded in concepts like owners' dominion and control—the ability of those who own to regulate the ingress and egress across their property. More technically, these notions are grounded in a right to exclude. If we start from the proposition that exclusion is the default—admittedly something that is disputed by some in the academic community—we can begin to see how owners can subsequently enter into agreements and arrangements that further, rather than impair, social relations with property.

The right to exclude serves important functions in ordering society and in developing our relationships involving property. It is from exclusion that we can understand the transfer of rights in property, the incentives to invest in property, and the overall management of relationships between owners and outsiders to the rights. The story of property rights is, in the end, a story about an ownership package with exclusion as a critical element.

That ownership package is commonly described as the metaphorical “bundle of sticks,” with each “stick” in “the bundle” representing some specific attribute of such ownership.¹¹³ Professor Katherine Guzman provides an excellent description of what it means to have a stick in the bundle of property rights:

Legal theory divorces the term “property” from the item itself to instead describe relative rights vis-a-vis that item. “Property” thus means things one can do *with* Blackacre (entitlements) including its use, possession and consumption, as well as enjoying its fruits, the ability to exclude others from its use, and the ability to transfer it. Although ownership suggests the assemblage of all such rights in one person who then totes the full “bundle of sticks,” one may properly speak of “owning” a lone entitlement or stick . . . Legally, the *right itself* is the property.¹¹⁴

112. See Donald J. Kochan, *Playing with Real Property Inside Augmented Reality: Pokémon Go, Trespass, and Law's Limitations*, 38 WHITTIER L. REV. 70, 94-100 (2018). See also ROBERT C. ELLICKSON, *ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES* 40-60 (Harvard Univ. Press 2009).

113. Grey's formulation of the bundle is useful: “Most people, including most specialists in their unprofessional moments, conceive of property as *things* that are *owned by persons*. To own property is to have exclusive control over something – to be able to use it as one wishes, to sell it, give it away, leave it idle, or destroy it. Legal restraints on the free use of one's property are conceived as departures from an ideal conception of full ownership. By contrast, the theory of property rights held by the modern specialist . . . fragments the robust unitary conception of ownership into a more shadowy ‘bundle of rights.’”

Thomas C. Grey, *The Disintegration of Property*, 22 NOMOS 69, 69 (1980). See also Thomas Ross, *Metaphor and Paradox*, 23 GA. L. REV. 1053, 1061 (1989) (“[t]he bundle metaphor . . . expresses a special sense of the separability of the various sorts of legally recognized interests”).

114. Katherine R. Guzman, *Give or Take an Acre: Property Norms and the Indian Land Consolidation Act*, 85 IOWA L. REV. 595, 615 (2000). According to the U.S. Supreme Court, “A common idiom describes property as a ‘bundle of sticks’—a collection of individual rights which, in certain combinations, constitute property.” *United States v. Craft*, 535 U.S. 274, 277 (2002) (citing BENJAMIN CARDOZO, *PARADOXES OF LEGAL SCIENCE* 129 (1928) (reprint 2000) and *Dickman v. Commissioner*, 465 U.S. 330, 336 (1984)). See generally Jane B. Baron, *Rescuing the Bundle-of-Rights Metaphor in Property Law*, 82 U. CINCINNATI L. REV. 57 (2013) (making the case for the utility of the bundle of sticks metaphor for understanding many of the issues related to property in property law).

The right to exclude—epitomized in the trespass cause of action—is fundamental to the law of property.¹¹⁵ Trespass is grounded on these exclusion rights held by property owners¹¹⁶ because it is a doctrine that defines the wrongs committed when “one person physically invades the land of another.”¹¹⁷ A trespass “consists of doing any of the following without lawful justification: (1) entering on to land in the possession of another, (2) remaining on the land, or (3) placing or projecting any object on it.”¹¹⁸ From all of these definitions, it should not be hard to see that, normally, roaming on the land of another is just a kind way to describe a trespassory act.

Trespass and other legal doctrines regularly recognize the right to exclude because the law starts with the presumption that property owners can choose who to include, when, and under what conditions.¹¹⁹ Such conditions might include payment for access. When we fail to recognize the right to exclude, property owners lose the ability to profit from such selling of access rights. Furthermore, property owners may especially want to control stranger access because those owners can sometimes be liable for actions taken by individuals on their property or even liable to trespassers that get injured while on their property.

The Supreme Court has regularly given the “right to exclude” recognition as fundamental to property.¹²⁰ Property owners have a level of dominion and control that allows them to manage property rights, including the power to exercise the right to include which is an extension of the choice to not assert the right to exclude. Owners may very well need to do certain things to protect their exclusive borders—like post signs, fences, or other notices to others¹²¹—but, so long as they

115. EDWARD H. RABIN, ROBERTA ROSENTHAL K WALL & JEFFREY L. K WALL, *FUNDAMENTALS OF MODERN PROPERTY LAW 2* (5th ed. 2006) (“All theories of property recognize that the right to exclude others is an important attribute of property.”); R. WILSON FREYERMUTH, JEROME M. ORGAN, ALICE M. NOBLE-ALLGIRE, & JAMES L. WINOKUR, *PROPERTY AND LAWYERING 7* (2d ed. 2006) (explaining that the right to exclude is a “unifying or necessary characteristic” of the “concept of property”).

116. Felix S. Cohen, *Dialogue on Private Property*, 9 *RUTGERS L. REV.* 357, 374 (1954) (“[T]hat is property to which the following label can be attached. To the world: Keep off unless you have my permission, which I may grant or withhold. Signed: Private citizen. Endorsed: The state.”).

117. JOSEPH WILLIAM SINGER, *PROPERTY 99* (5th ed. 2017).

118. *Trespass*, *BLACK’S LAW DICTIONARY* (10th ed. 2014). For a discussion of trespass’s role in our land use control system, see Donald J. Kochan, *A Framework for Understanding Property Regulation and Land Use Control from a Dynamic Perspective*, 4 *MICH. J. ENVTL. & ADMIN. L.* 303, 306, 322-24 (2015).

119. See generally Stewart E. Sterk, *Neighbors in American Land Law*, 87 *COLUM. L. REV.* 55 (1987). See also THOMAS W. MERRILL & HENRY E. SMITH, *PROPERTY: PRINCIPLES AND POLICIES 1-16, 938* (2d ed. 2012) (sections discussing trespass and chapter exploring the law governing “[t]he uses to which neighboring property is put”).

120. See, e.g., *Kaiser Aetna v. United States*, 444 U.S. 164, 176 (1979) (“one of the most essential sticks in the bundle of rights that are commonly characterized as property – the right to exclude others”). See also *College Sav. Bank v. Fla. Prepaid Postsecondary Educ. Expense Bd.*, 527 U.S. 666, 673 (1999) (“The hallmark of a protected property interest is the right to exclude others.”); *Int’l News Serv. v. Associated Press*, 248 U.S. 215, 246 (1918) (Holmes, J., concurring) (“Property depends upon exclusion by law from interference. . . .”); *Int’l News Serv. v. Associated Press*, 248 U.S. 215, 250 (1918) (Brandeis, J., dissenting) (“An essential element of individual property is the legal right to exclude others from enjoying it.”).

121. See generally Hynes, *supra* note 32.

meet these hurdles, the general enforceability of exclusion is strong in the American system.

The right to exclude, however, is more textured than the name implies. Exclusion is what makes it possible to thereafter apportion parts of the rights in a property to others. Included among the ancillary rights under the exclusion umbrella is the inclusion right.¹²² A leading property textbook describes this combination as “a relationship among people that entitles so-called owners to *include* (that is, permit) or *exclude* (that is, deny) use or possession of the owned property by other people.”¹²³

Professor Daniel Kelly’s research catalogs the ubiquity of the right to include within property law, and he concludes, “The ability of owners to ‘include’ others in their property is a central attribute of ownership and fundamental to any system of private property.”¹²⁴ This ability to include makes possible mutually beneficial exchanges—owners are willing to respond to demand from friends and strangers alike who are willing to offer something of value as consideration in exchange for being allowed to access the owner’s property.

Exclusion rights themselves allow owners to thereafter apportion rights within the thing we call property, including land. Among available ways to apportion property are the splitting of interests, formally or informally, and this right to include others in the use and enjoyment of the property. Consequently, it follows that from the greater right to exclude, control entry, and forbid all others comes the lesser right to include—which involves the decision to choose not to enforce one’s right to exclude to its fullest extent and to instead permit access.

Inclusion is about allowing access and sharing one’s ownership with others.¹²⁵ If one owns property, then they control access to it. They have the ability to permit roaming precisely because they have the power to prohibit it.¹²⁶ Fundamental principles of property law supporting inclusion and sharing¹²⁷ underlay the obvious point that property owners can choose to include roamers. If owners transfer rights of access to roamers, then the sharing of these access rights becomes simply an extension of one’s ability to use and control the property one

122. DUKEMINIER ET AL., *supra* note 74, at 104.

123. *Id.*

124. Daniel B. Kelly, *The Right to Include*, 63 EMORY L.J. 857, 859 (2014); *see generally* Donald J. Kochan, *Property as a Vehicle of Inclusion to Promote Human Sociability*, JOTWELL (Jan. 22, 2016), <http://property.jotwell.com/property-as-a-vehicle-of-inclusion-to-promote-human-sociability> (reviewing Kelly).

125. Donald J. Kochan, *I Share, Therefore It’s Mine*, 51 U. RICH. L. REV. 909, 933 (2017) (“[T]he *sharing* right [is] an outgrowth of the *inclusion* right, which itself grows out of the *exclusion* right held by property owners.”).

126. Bruce Yandle & Andrew P. Morriss, *The Technologies of Property Rights: Choice Among Alternative Solutions to Tragedies of the Commons*, 28 ECOLOGY L.Q. 123, 127 (2001) (“The separation of the legal interests in property from the physical object possessed has enabled us to constantly modify the set of property rights that constitutes ‘ownership’ of land (or anything else).”).

127. James E. Penner, *The “Bundle of Rights” Picture of Property*, 43 UCLA L. REV. 711, 745 (1996) (“The ability to share one’s things, or let others use them, is fundamental in the idea of property.”).

owns.¹²⁸ That is why “[t]he two rights [to exclude and to include] are the necessary and sufficient conditions of transferability.”¹²⁹ The inclusion stick and its offshoots allowing the granting of access rights empower owners to permit non-owners to access and use their property, including through mechanisms like roaming.¹³⁰

VI. FACILITATING INCLUSION: LESSONS FROM THE SHARING ECONOMY AND THE UTILITY OF EMERGING TECHNOLOGICAL PLATFORMS

“Sharing” as used in the “sharing economy” context generally means that assets or services—like one’s home in the homesharing market or one’s fields in a roaming market—are allowed to be accessed, possessed, used or consumed by someone other than the property owner (or, in other contexts, the provider of the services).¹³¹ The sub-markets already emerging in the sharing economy provide a blueprint for countless new ways to match demand with heretofore unknown supply. The sharing economy offers several models which should be studied to execute the creation of a market to roam. What Uber, Airbnb, and the like have done is contribute to the proof of concept for the right to roam. Knowledge of the existence of demand for a market to roam supports the belief that there should be incentives for entrepreneurial platform operators to begin building the market mechanisms that can allow the market to come into being.

Sharing in the sharing economy has taken off due to new market forces and technology that solve coordination and information problems.¹³² As Lobel documents, platforms facilitate sharing exchanges utilizing a variety of technological means of low transaction cost connections, facilitation of access to information between market participants, and reputation tracking to inject reliable

128. Juho Hamari, Mimmi Sjöklint & Antti Ukkonen, *The Sharing Economy: Why People Participate in Collaborative Consumption*, 67 J. ASS’N INFO. SCI. & TECH., 2047, 2049 (2015) (“Access over ownership means that users may offer and share their goods and services to other users for a limited time through peer-to-peer sharing activities, such as renting and lending.”), (citing Fleura Bardhi & Giana M. Eckhardt, *Access-Based Consumption: The Case of Car Sharing*, 39 J. CONSUMER RES. 881, 882-83 (2012)).

129. DUKEMINIER ET AL., *supra* note 74, at 104.

130. Kelly, *supra* note 124, at 871-72.

131. As I have summarized elsewhere: “[P]roperty that is shared in this sector is used or accessed rather than owned; the transfer of possession to facilitate such use or access is temporary rather than permanent and involves something less than granting an ownership share; ownership is retained the entire time by the sharer; and the sharer has an enforceable expectation for a return of any property and the cessation of use at a pre-determined future point in time.” Kochan, *supra* note 125, at 931; *see also* Rachel Botsman, *The Sharing Economy Lacks a Shared Definition*, FAST COMPANY (Nov. 21, 2013), <http://www.fastcoexist.com/3022028/the-sharing-economy-lacks-a-shareddefinition> (describing the sharing economy as an “economic model based on sharing underutilized assets . . . for monetary or non-monetary benefits.”).

132. *See, e.g.*, John J. Horton & Richard J. Zeckhauser, *Owning, Using and Renting: Some Simple Economics of the “Sharing Economy”* 1 (Harv. Kennedy Sch., Working Paper No. RWP 16-007, 2016), <https://research.hks.harvard.edu/publications/getFile.aspx?Id=1307> (“In recent years, technology startup firms have created a new kind of rental market, in which owners sometimes use their assets for personal consumption and sometimes rent them out. Such markets are referred to as peer-to-peer or ‘sharing economy’ markets.”).

and confirmable trust ratings into the process.¹³³ She explains that a “new wave of start-ups, relying on digital platform technology, are connecting people and transforming behavior and relationships outside of the digital world, tapping into underutilized human, social, and real capital. This new economy dramatically extends the lifecycle of products, shortens time of use, and exponentially expands connectivity and access.”¹³⁴ There are individuals who lack access to property and goods (like people without homes, people without cars, people who previously used taxi cabs to get around or hotels to stay while on vacation, or hikers without land of their own upon which to roam) and later become consumers who demand alternative means of access to such property and goods. As such, business innovators are generating new platforms to facilitate collaborative, access-based consumption.¹³⁵

Sharing platforms are flexible products of innovation that are increasingly being repurposed for new applications.¹³⁶ The success of the sharing economy is largely credited to new technologies, making new collaborations, connections, and exchanges feasible.¹³⁷ As transaction costs decrease, more sharing agreements become attractive alternatives for achieving preferences.¹³⁸ The literature on the sharing economy is already substantial,¹³⁹ and it need not be replicated here. What

133. Lobel, *supra* note 21, at 106-07.

134. *Id.* at 89.

135. See, e.g., Rashmi Dyal-Chand, *Regulating Sharing: The Sharing Economy as an Alternative Capitalist System*, 90 TUL. L. REV. 241, 243 (2015) (explaining “collaborative consumption” and “peer-to-peer” as alternative labels to describe “the sharing economy”); Shu-Yi Oei & Diane M. Ring, *Can Sharing be Taxed*, 93 WASH. U. L. REV. 989, 991 (2016) (“Also known as “collaborative consumption,” the “peer-to-peer economy” or “peer-to-peer consumption,” a broad range of commentators suggest that the sharing economy is transforming the way people consume and supply goods and services, such as transportation, accommodations, and task help.”); Hamari, *supra* note 128, at 2049 (“We define the term CC broadly as the peer-to-peer-based activity of obtaining, giving, or sharing access to goods and services, coordinated through community-based online services.”); Miller, *supra* note 14, at 150 (describing alternative names including “collaborative consumption” and “access-based consumption”).

136. Erez Aloni, *Pluralizing the “Sharing” Economy*, 91 WASH. L. REV. 1397, 1458 (2016) (“The P2P economy” is an innovative social transformation that “entrenches and intensifies existing economic and social practices and approaches.”).

137. Kellen Zale, *Sharing Property*, 87 U. COLO. L. REV. 501, 536 (2016) (explaining how many sharing economy activities “have only become possible on a large scale because of relatively new technology, such as GPS, smartphones, and app software.”); Georgios Zervas, David Proserpio & John W. Byers, *The Rise of the Sharing Economy: Estimating the Impact of Airbnb on the Hotel Industry 2* (B.U. Sch. Mgmt., Research Paper No. 2013-16, 2016), <http://ssrn.com/abstract=2366898> (The emergence of multi-sided technology platforms, “collectively known as the ‘sharing economy’, has enabled individuals to collaboratively make use of under-utilized inventory via fee-based sharing.”).

138. Jordan M. Barry & Paul L. Caron, *Tax Regulation, Transportation Innovation, and the Sharing Economy*, 82 U. CHI. L. REV. DIALOGUE 69, 70 (2015); see also Shelly Kreiczer-Levy, *Consumption Property in the Sharing Economy*, 43 PEPP. L. REV. 61, 77 (2015) (discussing how “new technologies and online markets have significantly lowered transaction costs for short term use of personal assets.” (footnote omitted)).

139. See, e.g., RACHEL BOTSMAN & ROO ROGERS, WHAT’S MINE IS YOURS: HOW COLLABORATIVE CONSUMPTION IS CHANGING THE WAY WE LIVE 67-96 (2010); Nestor M. Davidson & John J. Infranca, *The Sharing Economy as an Urban Phenomenon*, 34 YALE L. & POL’Y REV. 215 (2016); John Infranca, *Intermediary Institutions and the Sharing Economy*, 90 TUL. L. REV. ONLINE 29, 31 (2016); Miller, *supra* note 14; Zale, *supra* note 137, at 502-03 (“The sharing economy—the rapidly evolving sector of peer-to-peer transactions epitomized by Airbnb and Uber—is nothing if not controversial.”); Dyal-

we know is that “[s]haring is no longer an idiosyncratic pursuit; it is now a mainstream manner of consumption.”¹⁴⁰

Economists explain that sharing arrangements make sense when individuals can make resources, which have not been used to their greatest potential, more active and accessible.¹⁴¹ With roaming, for example, there is land that need not be constantly occupied by its owners. And passage through or across one’s own land constitutes an asset of the land that is undoubtedly underutilized. Economic researchers Christopher Koopman, Matthew Mitchell and Adam Thierer describe “the sharing economy as any marketplace that brings together distributed networks of individuals to share or exchange otherwise underutilized assets.”¹⁴² Sharers are owners with assets that could generate a profit without interfering with the owner’s present use,¹⁴³ and sharees are those who do not own but could benefit from the access that would otherwise be unavailable to them as non-owners of that asset.¹⁴⁴

In previous work, I have proposed the following definition for “sharing” in the sharing economy:

Sharing of a good or real property exists when Owner (O) exercises her right to include by authorizing a Stranger to the property (S) the temporary right to use or access O’s property in some limited and defined manner—converting what would have been a trespassory act by S into a legal, non-trespassory act—where such authorization is revocable by O in property law but where liability may exist in contract for any such revocation or interference by O in the rights or authority granted by O to S.¹⁴⁵

The explanation is particularly sensitive to the ideas that (1) property owners are sharing things they own, (2) are doing so precisely because they have the power to do so as owners, because (3) they own a sharing stick in their bundle of property rights. Owners can choose to share but also set the terms of the sharing arrangement, including charging a fee for the privilege of conditional or full access or offering it for free but with use conditions. The owner is exercising her right to include another in the access and benefits of her property.

Chand, *supra* note 135; Christopher Koopman, Matthew Mitchell & Adam Thierer, *The Sharing Economy and Consumer Protection Regulation: The Case for Policy Change*, 8 J. BUS. ENTREPRENEURSHIP & L. 529, 531 (2015); Kreiczer-Levy, *supra* note 138; Rashmi Dyal-Chand, *Sharing the Cathedral*, 46 CONN. L. REV. 647 (2013); Aloni, *supra* note 136.

140. Miller, *supra* note 14, at 201.

141. See generally, e.g., Koopman, *supra* note 139; Zeravs, *supra* note 137.

142. Koopman, *supra* note 139, at 531.

143. See generally Kreiczer-Levy, *supra* note 138, at 76 (“From the owner’s perspective, there are certain types of goods that have excess capacity when they are privately owned and consumed. Because the excess capacity is not used, certain types of goods are systematically underexploited.” (emphasis added)).

144. Dyal-Chand, *supra* note 135, at 253-54 (“In the areas of home and car sharing . . . individuals also share the excess capacity of assets that they do not fully use or need for themselves with strangers—for a price.” (footnote omitted)).

145. Kochan, *supra* note 125, at 947.

Most important in the access story behind the sharing economy is the advent of technological capacity that has only recently materialized to create the market infrastructure, complete with reliability and security measures, necessary to make such sharing efficient.¹⁴⁶ As lower-cost, higher reliability mechanisms for making sharing more accessible and more profitable improve, expansion of sharing activity follows.

Professor Julia Lee explains that new “[t]echnology has enabled innovative forms of exchange to emerge, spanning an ever-broader range of products and services.”¹⁴⁷ With these technologies, connections are made with greater ease between the owners who can supply a product and the consumers who want to access it for a limited time or limited purpose.¹⁴⁸ Ratings systems—run through internet repositories and social networks-- that develop around the sharing activity reduce risks of dealing with strangers because of the reputational controls inherent in system. These systems in turn allow consumers to comment on suppliers and suppliers to comment on consumers of the shared products or services.¹⁴⁹ These trust- and reputation-networks create monitoring, verification, and quality-control mechanisms that are key to making sharing platforms attractive and safe.¹⁵⁰ Reliable monitoring and rating systems can now be scaled because of the new information and connectivity technology.¹⁵¹ With roaming, for example, an owner might keep out roamers with reputations for poor stewardship.

These systems generate confidence for consumers and for suppliers, each made more comfortable entering the sharing arrangements because they know accountability and reputational rating systems are available to assist their decision making and deter bad behavior.¹⁵² *The Economist* posited that the technological platforms supporting the sharing economy make it so that there is “the availability of more data about people and things [which] allows physical assets to be disaggregated and consumed as services.”¹⁵³ This technological infrastructure supports the sharing economy because it provides “the market-thickening coordination mechanisms . . . such as coordinating on time and geography” previously present only in physical markets.¹⁵⁴

146. See Ryan Calo & Alex Rosenblat, *Taking Economy: Uber, Information, and Power*, 117 COLUM. L. REV. 1623, 1625 (2017); *The Rise of the Sharing Economy: On the Internet, Everything is for Hire*, ECONOMIST, Mar. 9, 2013, <http://www.economist.com/news/leaders/21573104-internet-everything-hire-rise-sharing-economy> (“technology has reduced transaction costs, making sharing assets cheaper and easier than ever—and therefore possible on a much larger scale.”).

147. Julia Y. Lee, *Trust and Social Commerce*, 77 U. PITT. L. REV. 137, 141 (2015).

148. See generally Abbey Stemler, *Betwixt and Between: Regulating the Sharing Economy*, 43 FORDHAM URB. L.J. 31, 67 (2016).

149. Horton & Zeckhauser, *supra* note 132, at 2, 8 (explaining that the sharing economy businesses have proliferated in part because of technological advances but also because emerging “recommender systems and reputation systems . . . are central to the function of P2P rental markets.”).

150. *Id.* at 8; see also Stemler, *supra* note 148 (discussing these “modern trust” systems).

151. Calo & Rosenblat, *supra* note 146, at 1635.

152. See Adam Thierer et al., *How the Internet, The Sharing Economy, and Reputational Feedback Mechanisms Solve the “Lemons Problem”*, U. MIAMI L. REV. 830, 869 (2016).

153. *The Rise of the Sharing Economy*, *supra* note 146.

154. Horton & Zeckhauser, *supra* note 132, at 7.

It is this technology that can operate in a market to roam—where owners can share access to land with roamers who desire it. Because legal systems evolve in concert with technology, it should be expected that they can evolve around roaming rights to coordinate sharing relationships and serve the information cost-reducing functions that have been seen in other already developed sharing markets. Experience proves that legal arrangements that are once uncertain suddenly can operate with the requisite reliability to support their adoption once paired with the right technological assistance.

VII. BY WHAT MARKET MECHANISM WILL WE IDENTIFY THE TRADEABLE RIGHT TO ROAM? THE EVOLUTION AND ADAPTABILITY OF PROPERTY FORMS

Some may argue that we need to accept or acknowledge new property forms to facilitate the creation of roaming rights as severable from property estates. Alternatively, a roaming market could be created by simply relying to facilitate roaming access on existing property forms (such as licenses and easements—including time-limited ones) or on existing contract forms. While it is likely that a market would emerge using existing mechanisms—much like homesharing adapted existing mechanisms to accomplish its goals—this part will briefly explain why property law itself is suited to adapt to the roaming market even if it does end up requiring the creation of new property forms. In fact, the technological revolution being witnessed within the sharing economy seems a perfect test for understanding the capability of the property system to adapt and evolve. This evolution happens in a manner that preserves the core attributes of having a predictable and identifiable legal substructure with a shared and understandable vocabulary.

In a market to roam, owners with the right to exclude could choose to (1) grant contracts that allow access for roaming, a category of rights for which owners have wide latitude within contracts law;¹⁵⁵ (2) use existing property forms like licenses, easements, or leases to accomplish the creation of property-based or contract-plus-property hybrid rights to roam between owner-grantors and roamer-grantees (or accomplish the same exchanges with platforms that thereafter would assign rights to actual roamers); or (3) give up a portion of their right to exclude by transferring a roaming right to others in the nature of some new property form that grants an inclusion stick carved out of the exclusion right. If the market to roam only utilizes existing contract or existing property forms, much of what is discussed in this Part is irrelevant. The idea of creating roaming contracts in categories (1) and (2) is less susceptible to criticism than the latter property right, which some might see as the creation of a new property form.¹⁵⁶

155. Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The Numerus Clausus Principle*, 110 YALE L.J. 1, 5 (2000) (“A willing buyer and a willing seller can create an infinite variety of enforceable contracts for the exchange of recognized property rights, and can describe these property rights along a multitude of physical dimensions and prices.”).

156. *See id.* at 3 (“A central difference between contract and property concerns the freedom to ‘customize’ legally enforceable interests” where “[t]he parties to a contract are free to be as whimsical or fanciful as they like” but property is more rigid.)

The creation of roaming rights that can be traded seems like a straightforward extension of the bundle of sticks concept of ownership,¹⁵⁷ when property in a thing can be disaggregated into a variety of legal interests in the thing. But how far the bundle metaphor can be extended is a regular subject of debate.¹⁵⁸ Considerations over just how far property rights can evolve and adapt to accommodate new interests in splitting property into new, discrete customized interests are key concerns.

By engaging with the literature on the connections between technological innovation and the feasibility for the property system to absorb the creation of new property forms, the argument for a “market to roam” as a feasible evolution in our appreciation of enforceable rights is strengthened. Despite the fact that a new property form is likely unnecessary, there could be a reason to identify a separate property interest in roaming—a process that could butt heads with arguments disfavoring the creation of new property forms. As those crafting a market to roam begin to get creative and innovate, new property forms might allow for greater customization of property relationships between owners and roamers or between owners and platforms. The benefits from long-term and durable commitments may counsel embracing new property forms as the vehicle for transferable roaming rights as a better means to generate stronger property-based relationships than what could be created through existing property forms or contracts.

Thus, to give the architects of the new market to roam wide berth for navigating us toward a system that works most effectively, this part will focus on why, even if a new roaming right needed to be created and identified as a separate, new interest, it would not pose a threat to the stability of the system of property forms. In the process, the analysis also helps tell a story about how technology can facilitate the market to roam and aid the acquisition of information necessary for it to function well as a system of rights’ exchange.

New technologies that manage trust problems like we see emerging in the sharing economy already should help spur easy, low transaction cost roaming rights. The question whether the system of property can accommodate such transactional arrangements requires some basic preliminary analysis. As previewed above, the rest of this part takes on that task. Although some scholars question the capability of the property system to support subdivision of rights, or sticks, in the property rights bundle, emerging technologies might be capable of breaking down barriers to new legal interests.¹⁵⁹ New sharing economy mechanisms are demonstrating just how such technologies can make transactions in subdivided property bundles more accessible to owners and users of property¹⁶⁰ and these

157. Yandle & Morriss, *supra* note 126, at 127-28 (explaining that the bundle of sticks means that “Particular rights—the right to harvest timber or to cross a particular piece of land—represent individual sticks; various rights holders have bundles of varying composition with respect to particular parcels of land.”).

158. Merrill & Smith, *supra* note 155, at 3 (explaining that fragmentation must be controlled to maintain optimal standardization of property rights, but that “[t]here is a spectrum of possible approaches to property rights, ranging from total freedom of customization on the one hand to complete regimentation on the other.”).

159. Yandle & Morriss, *supra* note 126, at 127-28.

160. *See supra* Part VI.

should be capable of extension, enabling technological facilitation of markets in ecological resources.

Manipulating one's package of property ownership rights to include others in its use and enjoyment requires a determination of the extent to which property rights are flexible and customizable. Consider the role of technology in the sharing economy and the way it has generated brand new ways to maximize the utility of property by putting to work underutilized assets in land and goods. New technology eliminates some of the concerns against newly customized forms of property, and the reason roaming rights could be recognized without offending the principles that work to cabin the universe of acceptable property forms. That this is an unthreatening prospect to the system of property standardization is revealed after examining the arguments against creating new forms of property.

One of the arguments against customizable forms of property and the division of interests in property has been the fear that an unlimited set of diverse forms of ownership would be impractical to administer and enforce, with the market itself incapable of adequately understanding the division of rights in a way that could allow for efficient trading in them. For this reason, strong advocates of the *numerus clausus* principle—which holds that “property rights must conform to certain standardized forms” and the set of available forms is a closed, finite list limited to existing property forms thereby not permitting the creation of novel property forms outside the list¹⁶¹—advocate for a closed system that prohibits new entrants into the scheme of recognized property forms.¹⁶² Professors Thomas Merrill and Henry Smith explain why property forms are limited while contract forms are not.¹⁶³ Unique problems can be generated when third parties must identify the meaning of novel forms in the property context in order to evaluate the nature of the property rights held.¹⁶⁴ In contract law, third party reliance issues are less present.¹⁶⁵ Merrill and Smith explain this information cost problem with property forms and conclude that its existence requires the property system to identify and work toward the optimal standardization (and limitation of the number) of forms in property law:

The root of the difference, we suggest, stems from the *in rem* nature of property rights: When property rights are created, third parties must expend time and resources to determine the attributes of these rights, both to avoid violating them and to acquire them from present holders. The existence of unusual property rights increases the cost of processing information about all property rights. Those creating or transferring idiosyncratic property rights cannot always be expected to take these increases in measurement costs fully into account, making them a true externality. Standardization of property rights reduces these measurement costs.¹⁶⁶

161. Merrill & Smith, *supra* note 155, at 4.

162. *Id.* at 3 (explaining the purposes of a fixed set of enforceable property forms and that, “[g]enerally speaking, the law will enforce as property only those interests that conform to a limited number of standard forms.”).

163. *Id.*

164. *Id.* at 8.

165. *Id.* at 3, 8.

166. *Id.* at 8.

There are high information costs in translating the rights available in any particular property transaction and in understanding what rights others have in the piece of property one wishes to acquire.¹⁶⁷ According to Merrill and Smith, the existence of high transaction costs associated with new and novel property forms necessitates that property law work with a closed set of optimal standard forms so that everyone engaging in property transactions is speaking the same language and capable of assessing the nature of each estate. To do otherwise, they contend, would inject indeterminacy in property forms in a manner that would impede trade in property.¹⁶⁸

Yet, even some of the strongest advocates for a closed set of property forms, like Merrill and Smith, nonetheless recognize that technological changes have the capacity to break down some of the objections to allowing new form entrants.¹⁶⁹ Under Merrill and Smith's "information-cost theory of the *numerus clausus*," the availability of technology that provides "cheaper information" makes new property forms less objectionable.¹⁷⁰ For example, they explain that the "strict formality requirements" normally required in negotiable instruments break down as technology improves: "when technology furnishes alternative means of promoting reliance (including lowering the need to measure risk), there is less need for the standardization provided for by the requirements of negotiability."¹⁷¹

The technology that can facilitate transactions recognizing distinct roaming rights, already proving itself in other aspects of the sharing economy, should diminish resistance from those that might worry about a market to roam expanding recognizable and enforceable property forms. As Merrill and Smith admit, "to the extent that technological change allows cheaper notice of relevant interests, the need for standardization by the law will be somewhat diminished," and "technology that lowers information costs can be expected to weaken the *numerus clausus*" principle.¹⁷² If it can be done in a verifiable and identifiable way, then recognizing a new form of property right to roam as a separable, tradeable stick in an owner's bundle of rights would not disrupt optimal standardization of forms.

This conclusion is also consistent with the work of Professors Bruce Yandle and Andrew Morriss, who describe technology—whether it be in physical form like barbed wire or in legal innovations like land registries—as an accelerator of property rights evolution.¹⁷³ Professors Terry Anderson and P.J. Hill reach

167. *Id.* at 40; *see also* Yandle & Morriss, *supra* note 126, at 140 ("One important class of transaction costs relates to measuring and monitoring the items transferred among trading parties. Where the ability to define, defend, and therefore, monitor such transfers is lacking, alienability and gains from trade cannot be obtained, and contracts cannot be enforced.").

168. Merrill & Smith, *supra* note 155, at 31.

169. *Id.* at 40 ("Our explanation of the *numerus clausus* generates some general predictions about the way in which property regimes will change over time: As the costs of standardization to the parties and the government shift, we expect the optimal degree of standardization to rise or fall.").

170. *Id.* at 41-42.

171. *Id.* at 42.

172. *Id.*

173. Yandle & Morriss, *supra* note 126, at 127 (describing the "technologies" affecting property rights in terms of physical world technologies (like barbed wire) and legal innovations (like recording statutes)).

similar conclusions, crediting the advent of new technologies as transforming the nature of property rights in the American West.¹⁷⁴

Changes in the physical, legal, technological, and social environment surrounding and impacting property ownership and usage have the capacity to alter our understanding of the optimal configuration of property rights.¹⁷⁵ Quite simply, property rights can carry more customized operational baggage when technology lightens the load. Yandle and Morriss explain that, “The technology of property rights can be understood by thinking about this bundle of sticks. Technology, either in law or in a more conventional sense, allows increasingly sophisticated definitions of property rights and allocation of particular sticks to either private property owners or public entities.”¹⁷⁶ They describe this inherent flexibility and adaptability in the property system as facilitating “unbundling” the rights within the property rights bundle of sticks in three ways: (1) “technology can affect what rights can be placed into the bundles of sticks. Thus a legal change or scientific innovation may place something within the category of things that may be owned or may remove it from that category;”¹⁷⁷ (2) “technology can make it possible to subdivide property rights within a particular bundle in new ways;”¹⁷⁸ and (3) “technology may make different forms of property possible.”¹⁷⁹ All three of these unbundling mechanisms seem present in the creation of a market to roam as facilitated by platform technologies like those seen in already emerging sharing economy sectors. Consider how Yandle and Morriss describe the conditions for unbundling:

Unbundling is a vital component of the process of property rights evolution. All of the paths out of the tragedy of the commons require creating and allocating some new stick or sticks in a property rights bundle. Although the paths differ in what they require to create and allocate a stick, each path involves some combination of defining, defending, and enabling transferability of property rights.¹⁸⁰

The technology that would be employed in sharing access would accomplish that definitional, supportive, and enabling work.

The dynamic nature of property rights makes them adaptable to serve more and more functions, including social ones that might have seemed to some only possible if exclusion were limited by the state. And the “[c]hanges in property rights technology [that] can alter the mix of costs associated with defining, defending, and enabling transferability as well as the relative magnitudes of the

174. See generally Terry L. Anderson & P. J. Hill, *The Evolution of Property Rights: A Study of the American West*, 18 J. L. & ECON. 163, 164-65, 167, 172-75 (1975) (discussing technological innovations as one of the factors that “govern changes in the content of property rights,” with branding and barbed wire as key examples).

175. Yandle & Morriss, *supra* note 126, at 127.

176. *Id.* at 128.

177. *Id.*

178. *Id.* at 129.

179. *Id.*

180. *Id.* at 135.

various cost generators”¹⁸¹ can be seen in the new technologies capable of facilitating the creation of roaming rights tradeable in a market to roam. When the benefits increase and costs decrease for applying new technology, the incentive calculus changes for investing in activity. Individuals will expend more time and resources on innovative new ways to define and enforce property rights.¹⁸²

As earlier parts of this article illustrate, new technologies have emerged to make it possible to generate identifiable interests while creating the transparency and monitoring necessary to make exchanging roaming rights an efficient transfer and one that should receive legal acknowledgement and enforcement. The explanation by Yandle and Morriss about the conditions that should exist to recognize new property rights serves as a blueprint for the application of technology to the roaming rights market:

Defining, defending, and gaining agreement involve three aspects of property rights technology. For any type of property right to exist, the resource itself must be identified and its amount and quality measured. To defend the defined rights to the resource, threats and harms must be identified and measured. For rationing and exchange to take place, resource activity must be monitored and recorded. These categories of technology can include basic scientific knowledge about the resource and threats to it, as well as meters, remote sensing and recording devices, fences, brands, and identifying marks. The third category, gaining agreement, generally involves the use of some kind of two-way communications technology that provides information, feedback, and recorded agreement or disagreement between and among people who would normally transact with each other.¹⁸³

The identification, measurement, monitoring, recording, and feedback requirements can all be met within a market to roam facilitated by platform technologies.

If policymakers identify these functions of technology and construct roaming rights with each of those criteria in mind, and if the demand exists for roaming, a market to roam should be feasible whether we rely on an expansion of existing property forms to do the job or whether we use existing vehicles in contracts or property to facilitate the transfer of the appropriate rights. If new property forms are necessary, the disruption to the system will be minimal, if any, given the technological innovations that allow us identify, monitor, and track the discrete interests associated with the market-based right to roam.

VIII. WHAT OPERATIONAL HURDLES MIGHT WE ANTICIPATE TO OVERCOME AS WE DESIGN ROAMING MARKETS?

As we sketch out the contours of a possible market to roam, it is important to recognize some of the hurdles to its effective functioning and to be honest about

181. *Id.* at 139; see also Anderson & Hill, *supra* note 174, at 178 (“Technological change or lower resource prices will increase property rights activity.”).

182. Anderson & Hill, *supra* note 174, at 167, 178.

183. Yandle & Morriss, *supra* note 126, at 141.

some of its limitations that could make it less than satisfying to those who push for more roaming access. By acknowledging and cataloging these concerns, the hope is that market to roam entrepreneurs will start to innovate toward solutions to minimize their incidence or impact on achieving a robust roaming market. In providing some preliminary awareness of these problems, perhaps brainstorming will begin and solutions may follow.

A good starting point is a list of concerns that Professor Neil Hamilton developed to examine what should be done with any expanded access system to incentivize private property owners to allow more public access to their lands.¹⁸⁴ As he explains: “The challenge is developing a mechanism to encourage private owners to open their lands for private use. One question to consider here is: What would it take for a private landowner to be willing to allow some forms of public use of a property?”¹⁸⁵ Hamilton answers his question with a very useful list.¹⁸⁶ Several of the items on the list call for more governmental intervention than is advocated here. Others may prove useful where the hope is to sketch a roaming system that is minimally dependent on government coordination and more purely market-oriented. Additional issues not included on Hamilton’s list are also discussed below.

A. Liability of Property Owners

Property owners may be reluctant to engage in roaming transactions for fear of liability for injuries to roamers with whom they contract.¹⁸⁷ One can imagine a situation where a roamer either is granted permission for free or for a fee, stumbles while roaming, and suffers bodily injury. The law will presumptively treat

184. Hamilton, *supra* note 5, at 202.

185. *Id.*

186. *Id.* Hamilton’s list of what must be provided in order to encourage property owners to offer more access:

1. Protections from liability for anything that might happen to people while they are on the land, even if compensation is provided.
2. An ability to be compensated if there were damages or other harm that happened, e.g., crops destroyed or fences damaged.
3. Some assurance of adequate supervision or management with increased public safety patrols by the game warden, sheriff, or county conservation board.
4. Clear designations as to which property is open for public use and which is not, such as through signage and other markings, and an indication of the types of activities allowed.
5. A process for establishing well-understood limitations on the extent of public use—such as time and manner restrictions—e.g., permitting walking only on trails or closing land to public use during hunting season or calving.
6. Forms of compensation to provide significant economic benefits or tax breaks for participating in the program.
7. Some form of restriction or record-keeping so users can be identified and informed of the rules, permit fees can be collected, and user rights and obligations communicated.
8. Some method of public recognition and acknowledgement for providing the public benefits.

Id.

187. *Id.* at 201 (explaining that private landowners are “fearful of allowing any form of public use due to worries about liability if someone is injured”).

the roamer as a licensee or invitee and exposure to tort liability may follow.¹⁸⁸ Although the law sometimes makes owners liable also to trespassers, that liability risk is very low.¹⁸⁹ When the relationship changes and the roamer is there by permission, the property owner may be forced to take on new duties that would not have existed but for that permission. Consequently, many owners may be deterred from agreeing to offer their properties in a market to roam because of this risk exposure, with potential liabilities likely far exceeding any fees they could charge. Alternatively, any fees that might be charged and adjusted upward to account for the liability risk might be too high to generate willing roaming customers. The risk could either drive out suppliers or drive up costs so high that demand is lost.

The law has already attempted some solutions to have the best of both worlds—more owners permitting access while limiting the risk of liability. So-called “recreational use statutes” adopted across the states provide a liability shield to property owners who allow strangers to recreate on their property.¹⁹⁰ Every state has adopted some version of this kind of protective legislation to encourage owners to allow greater access.¹⁹¹ As the Alabama statute declares, for example:

[I]t is in the public interest to encourage owners of land to make such areas available to the public for non-commercial purposes by limiting such owners’ liability towards persons entering thereon for such purposes [and] that such limitation on liability would encourage owners of land to allow non-commercial public recreational use of land which would not otherwise be open to the public.¹⁹²

188. See, e.g., 48 AM. JUR. PROOF OF FACTS § 275 (1987). The following summarizes the basic standards of tort liability for those who enter property with permission: “An invitee is one entering the premises on the landowner’s or occupier’s invitation. A licensee is uninvited, but enters with the owner’s or occupier’s permission or acquiescence . . . Under the traditional common-law approach . . . an invitee is owed a duty of ordinary care, but trespassers and licensees are obliged to take the premises as they find them, and the possessor of the land owes them only a duty of refraining from wanton and willful injury, insofar as the condition of the premises is concerned.” *Id.*

189. William Rooks & Caitlin Dorné, *Torts*, 31 GA. ST. U. L. REV. 217, 219 (2014) (“[C]ourts generally hold that a landowner or occupier is under no duty to anticipate a trespasser’s presence. And where a landowner or occupier neither knows of the trespasser’s presence nor the danger, no duty arises to maintain the premises;” but, “a landowner or occupier may not lay a trap with the intent to harm trespassers.”).

190. *Id.* at 201 n.76 (“The fears relating to potential liability if users are injured have been addressed in the various recreational use laws passed in most states”); see also Kenlan, *supra* note 74, at 197 (“As an alternative to creating statutory rights to access private land, other provisions of Maine law encourage landowners to permit public access voluntarily. For example, Maine’s landowner liability law protects landowners against tort claims from members of the public injured while on private land.”); George W. Royer, Jr., *Protection for the Recreational Property Landowner: The Alabama Recreational Use Statutes*, ALABAMA LAWYER, Jan. 2018, at 18, 19. (“the [Alabama] Recreational Use Statutes provide substantial protection to the owners of non-commercial recreational property for injuries sustained by users of such property.”).

191. Kahr, *supra* note 33, 90-91 (“Several commentators have examined the question of the proper scope of landowner liability for recreational uses of private lands, and consideration of the problem has provoked every state legislature to adopt some form of liability limitation for private landowners that permit public recreational uses of their property.”).

192. ALA. CODE § 35-15-20.

The basic hope is that the recreational use statutes will motivate risk-averse property owners to provide greater recreational access to the public over their private lands. Oftentimes, a state statute will expressly eliminate a duty of care in relation to a stranger's recreational use. Maine, for example, provides that "[a]n owner . . . of premises does not have a duty of care to keep the premises safe for entry or use by others for recreational . . . activities or to give warning of any hazardous condition . . . to persons entering for those purposes."¹⁹³

These statutory protections should be extended as far as possible to apply to permissions granted within a market to roam. Nonetheless, they may often be of little assistance to encouraging owners to engage in the permissions anticipated by this article's proposal. In some states, for example, the protection of a recreational use statute focuses on whether a fee is charged for the permission or access related to the recreational use. Iowa's statute, for instance, provides that a property owner "who either directly or indirectly invites or permits *without charge* any person to use such property for recreational purposes or urban deer control does not . . . assume responsibility for or incur liability for any injury to person or property caused by an act or omission of such persons."¹⁹⁴ This approach would obviously make these laws ineffective at solving the liability problems associated with a market to roam if that market (in whole or in part) relied on the possibility of fee-based roaming rights.¹⁹⁵ Because liability exposure in those circumstances would remain under many of the recreational use statutes presently operative, some broader legislative protection might be necessary to encourage more owners to allow roaming. Some states like Alabama, for example, allow owners to gain the protection of its recreational use liability shield even if the owners charge fees, so long as the fees are not for a profit.¹⁹⁶ In such states, though, if one is permitting access for the purpose of making a profit then the statutory protection does not apply.¹⁹⁷

Given their limited scope, the existing recreational use statutes are ill-equipped to foster fee-based sharing relationships for roaming access. They do not give enough property owners sufficient confidence that they will not face additional liabilities if they participate in a right to roam.

Beyond statutory shields, other mechanisms might emerge and should be explored to handle the liability problem. Several mechanisms from the categories of contracts and insurance immediately come to mind. Contractual disclaimers of liability are a possibility, but they will be subject to the limitations on, and indeterminacy of, enforceability that always follow such provisions.¹⁹⁸ Contracts

193. ME. REV. STAT. ANN. TIT. 14, § 159-A (2015).

194. IOWA CODE § 461C.4 (2013) (emphasis added).

195. Hamilton, *supra* note 5, at 202 n.79 ("[Usually] the law does not provide liability protection when users are asked to pay a price or fee for permission to use the land[.]").

196. Royer, *supra* note 190, at 20.

197. *Id.* (such as by charging access fees larger than for pure administrative costs).

198. Contractual disclaimers are an option, but courts sometimes ignore them to serve broader policy goals; thus, they are not iron-clad and one should go into their use with one's eyes open to the possibility a disclaimer might not be enforced. *See, e.g.*, RESTATEMENT (THIRD) OF TORTS: PHYS. & EMOT. HARM § 2 (2010) (explaining the consequences of "the plaintiff in dealing with the defendant [accepting] a contractual disclaimer of liability" yet the situation where "if the particular disclaimer is so

could require roamers themselves to carry insurance policies for their own roaming injuries (and, perhaps to also cover the roamers' own liability for damages to the owners' property while roaming). In other words, roamers might be required to buy insurance for injuries suffered while roaming or for the infliction of damages to properties on which they roam before suppliers would be willing to exchange with them in the roaming market. Whether this could prove a disincentive to purchase roaming rights will have to be seen and will largely depend on what insurance instruments are developed by the insurance industry in response to a new demand. Similarly, participating property owners could purchase insurance to cover their risks of liability to this new category of third parties on their properties. Here too, insurance companies' capability to provide a low-cost vehicle for risk protection will play a role in the cost calculus. Finally, to the extent that the properties in the roaming market are managed by a platform, the platform could be the entity obtaining insurance, capitalizing on its market power, economies of scale, and greater risk spreading to drive down the cost of insurance, making it cheaper than if each property owner or roamer had to obtain insurance piecemeal. Much like Airbnb's "Host Protection Insurance" program,¹⁹⁹ the platforms running the roaming market could obtain insurance and then offer policies to the property owner roaming-hosts at affordable rates that provide adequate enough coverage to encourage host-owner participation.

B. Adverse Possession, Prescriptive Easement, and Implied Dedication Issues

Whenever strangers begin to traverse upon or use private lands, there is always a risk that their use or occupation could rise to a level of protected legal status—even without the property owners' consent. For example, in all states, statutes provide that non-owners may "adversely possess" property in a manner that gives them rights to property if they meet certain elements of adverse, continuous, and uninterrupted occupation for multiple years.²⁰⁰ Although it is very difficult to meet the requirements to prove adverse possession and it is very easy for an owner to assert their rights during the statute of limitations to eject the trespasser (defeating the occupier's claim to the continuous possession necessary to complete the elements of adverse possession), once an occupier meets the elements they get title to it as a matter of law and consequently the owner loses title.²⁰¹ A similar doctrine recognized in all states involves "prescriptive easements."²⁰² With elements very similar to adverse possession, a "prescriptive easement" can be

broadly written as to clearly include claims based on recklessness as well as negligence, courts in some jurisdictions might find that such a disclaimer violates public policy and should not be enforced.").

199. AIRBNB *Host Insurance Protection*, <https://www.airbnb.com/host-protection-insurance>.

200. See DUKEMINIER ET AL., *supra* note 74, at 144; Henry W. Ballantine, *Title by Adverse Possession*, 32 HARV. L. REV. 135, 135 (1918).

201. JERRY L. ANDERSON & DANIEL B. BOGART, *PROPERTY LAW: PRACTICE, PROBLEMS AND PERSPECTIVES* 115-19, 144 (2014); see also Donald J. Kochan, *Keepings*, 23 N.Y.U. ENVTL. L.J. 355, 379-84 (2015) (providing a detailed discussion of adverse possession and the mechanisms by which owners can defeat an attempt to adversely possess).

202. See generally SINGER *supra* note 120, § 5.4; *Scope of Prescriptive Easement for Access (Easement of Way)*, 79 A.L.R. 4th 604 (1990).

established when someone uses the property of another adversely and continuously across a defined statutory period without permission or interruption from the owner of the fee over which the use is made.²⁰³ Courts recognize a few other types of implied dedications or implied easements as well, based on the behavior of the parties²⁰⁴—such as when a user of the property relies detrimentally on promises from the owner that the user may continue to use the property, permitting the user of the property to make a claim for an easement by estoppel.²⁰⁵

To effectively incentivize property owners to allow roamers on their property, concerns over potential adverse possession, prescriptive easement, or implied dedication claims will need to be addressed.²⁰⁶ Such claims by roamers are likely to be defeated within a market to roam because of the documentation of permissive and limited use that would exist by the language of the roaming contract or other instrument conferring roaming rights. The elements of adversity or implied dedication can be overcome by looking to the purposes and permissions that gave rise to the presence of the roamer and the roaming activity, evidencing the absence of necessary elements under any of these doctrines. Nonetheless, it might be prudent to consider whether legislation declaring that any such roaming conducted within a market to roam shall not give rise to these claims—absent some extraordinary showing of defiance of an access agreement—should be adopted to ensure that owners are not chilled from entering the roaming-property supply chain by the perceived possibility of such claims.²⁰⁷

C. Land Assembly Issues / Checkerboard Risks

Participation in the right to roam needs to be extensive if it is to provide effective and attractive supply of access. It is likely that hikers and roamers will seldom want a path through only a single property. If they cannot assemble a rights package that allows them to complete a full roaming experience, they may be unwilling to purchase or subscribe to any roaming rights at all. This is often an argument presented to claim that only the government can manage an access regime.²⁰⁸

The system needs to work on attracting property owners as participants to overcome the potential that multiple lands cannot be assembled to provide a valuable combined product. If there is not an uninterrupted path for roaming across

203. SINGER, *supra* note 117, § 5.4.

204. *Id.* at § 5.3.

205. *Id.* at § 5.3.1.

206. Kahr, *supra* note 33, at 90-91 (discussing the necessity of policies addressing adverse possession, prescriptive easement, and liability for injuries risks associated with allowing recreational use on private land if we are to incentivize private owners to grant access rights).

207. *Id.* at 81 (“Legal rules limiting adverse possession exposure, implied dedication findings, and liability for third-party accidents when a landowner allows public recreational use of private land introduce incentives for owners of unenclosed land to acquiesce to” public access (including for off-road vehicles)).

208. See, e.g., Hynes, *supra* note 32, at 978 (“[T]here are several possible market failures that could justify public action,” including “an anti-commons problem may prevent effective private sector action. For example, a hiking trail may need to cross several parcels, and each parcel may hold out and demand a payment equal to the entire value of the trail.”).

multiple contiguous parcels, the desirability of the rights will be diminished. Innovators should work to find ways to create integrated networks of property owners. The level of difficulty cannot be fully known until a spontaneously-ordered market is set loose and entrepreneurs start to innovate from the bottom up to find solutions to overcome these hurdles. As indicated earlier, private organizations have already shown success at cobbling together multiple access rights to create substantial trails for snowmobile and other access. Thus, it can be done. And, with proper organization, clarity of benefits, and outreach—especially if facilitated by platforms that have an interest in assembling large portfolios of access rights—hopefully the risk that rights would only be available in disconnected squares on a checkerboard can be minimized.

D. Transaction Costs Associated with Acquiring Rights from Multiple Owners and Identification of Participating Properties

A related, but somewhat different, concern is that roamers may face prohibitively high transaction costs if they are required to negotiate with multiple owners to put together a roaming path across multiple properties. This is where the organizational and informational elements of platform providers can be brought to bear. Platforms can bring their proven skills to this coordination problem and keep transaction costs low, allowing roamers to use the platform as the intermediary. The platforms and the technology they generate should also find ways to maximize the information available to consumers in the roaming market to make the identification of participating properties easy—both in advance planning and while “in the field” when they might need to navigate around non-participating parties or engage in new transactions during, and in order to continue with, a roaming experience.

E. Who sets the prices?

The platforms could also serve as a way to standardize prices and to overcome perverse incentives for landowners to hold out (such as when wanting to be the last in a chain of properties necessary to assemble a full trail) or otherwise charge exorbitantly high prices. In fact, this may become an even more critical role for platforms than it is in something like Airbnb or Uber. Roaming is different because the roamer may need to patch together several distinct properties. That is not a problem for Airbnb, because people choose one property for the full experience (they are not changing lodging locations every hour).

At the same time, however, there will need to be ways to account for variation in prices depending on the value of the experience offered from any particular property even while trying to avoid pricing behaviors by individual suppliers that inhibit the market’s success. With Uber, for example, the main thing the customer usually cares about is time (setting aside safety and the comfort level of the ride at the margin). But in the roaming market it is more likely that different properties might have different ecological amenities and other experience values that make the value of the roaming different on different properties. In that sense, the pricing might be handled more like Airbnb where different dwellings offer different value.

F. Compensation to Landowners for Damages

Landowners may want easy vehicles for bringing claims against roamers for damages to the lands used. Contract provisions will likely accomplish most of the work here, but both the types of damages claims and the dispute resolution formats should be carefully examined as the market emerges. If landowners feel that damage to property will be frequent, that responsibility will be hard to assess, that dispute resolution will be costly, or that judgments will be difficult to collect, they may be reluctant to enter the market, especially if prices are not high enough to cover the risks. Here, as with personal injury liability, insurance markets could emerge to minimize some of the risks to the landowner of suffering uncompensated property damage and to minimize some of the risks of liability of the roamers to the landowners through property damages claims. Investigation should be made as to how insurance could become available and benefit both sides of the transaction.

G. Public Safety and Crime Prevention

Any permissive access regime introduces the risk that those gaining access might pose a public safety risk or use the access to further criminal purposes. If you let people inside the fence—proverbial or real—they are one less step removed from committing a criminal act to the residents or their property. The more frequent lawful presence of non-owners on land may also make it harder to identify who belongs and who does not. Local law enforcement officials should develop strategies to adapt to the changed circumstances from increased roaming activity. Property owners too should find ways to minimize their personal risk and assure their safety when strangers become a more frequent and proximate part of their daily experience. It is likely that some property owners may find these safety concerns too high a risk, leading some to choose not to offer their properties in the market to roam. Others will invest in new security measures to lower the risks and some will increase the price charged for roaming to make that costs of bearing the risk more tolerable. Platforms or local governments could also adapt to provide greater security in response to the emerging market and increased foot traffic across these private lands.

H. Reliability of Cellular and Satellite Service

Much of the success of the market to roam may depend on the reliability of mobile phone cellular and satellite service. If we presume that a roaming market may depend on “in the field” transactions, those would be hard to process if one cannot stay connected. Service will also be required for navigating through participating properties, for getting pinged when alerts are necessary (such as when traversing outside boundaries or into new properties), for emergency assistance, and for platforms and owners to monitor movements so that they can hold roamers responsible for any damages or deviations from permissions. This need for service may cause functional concerns, but also could be a participation deterrent. The possibility of unreliable service may make the experience in a roaming market less worthwhile meaning fewer might pursue it; and, owners may be less willing to participate when they realize that their monitoring abilities may be compromised

by service interruptions or dead zones. Such monitoring problems may also affect the availability of insurance.

While some of these problems may be unavoidable, their recognition at least allows market participants to adjust accordingly. And, it creates a target for secondary attention where those interested in improving the roaming market may have an incentive to assist with improving the universality of cellular service. As the market to roam evolves, attention should be given to improvements in wireless networks, cell tower placements, and in smart phone capabilities to minimize some of these risks.

I. Non-Universality or Other Interference with the Unbounded Connection to the Earth

Finally, even if the market to roam results in increased access, it will never be universal access because it is not compelled. This approach will likely, at least at first, leave many progressive property scholars and other free movement advocates wanting. The purity of open access without bargaining—because all properties become part of the accessible lands portfolio and because it is an unbounded and more natural connection with the earth—may seem lost when individuals must engage in a market exchange for acquiring roaming rights. Even if many of the rights are free or at minimal cost, the mere necessity of the transaction can seem like an interruption in the freedom of the roam. Yet, if the advocates for mandatory roaming rights also recognize that they are unlikely to ever see a political environment that will permit such universal mandated access, perhaps those advocates would be willing to support the development of what, in their minds, might be a second best solution. Nevertheless, this Article does not pretend that its proposal for a market to roam will serve as a perfect substitute for all of the social and human values that some seek when they call for limits on exclusion and the corresponding mandated conferral of roaming rights.

* * *

The market to roam is an alternative means of supplying roaming rights that demands attention within the broader discussion on how to expand access rights to private lands. Before presuming market failure (as those who advocate for government-mandated roaming rights do), the values of emerging technologies and business innovations breaking down barriers are worthy considerations.

IX. THE COMPARATIVE UTILITY OF THE MARKET TO ROAM OVER COERCED ACCESS

After successful solutions lead to an operating roaming market, there are many reasons to believe that consensual roaming arrangements will lead to a superior roaming experience with better stewardship of ecological resources than with progressive property's mandated "right to roam" statutes.²⁰⁹ There are reasons to believe that protected and accountable access is better than free and less-monitorable access. A system for sharing roaming rights through bargaining would

209. Claeys, *supra* note 9, at 463 (discussing the "adverse social consequences from roaming statutes" that "have not been adequately considered in scholarship supportive of roaming rights.").

create accountability that is lacking in free-roaming regimes. After all, who watches the roamers when the state is the one conferring the rights and the roamer need not take any steps to seek advance permission to roam?²¹⁰

Exclusion and the gatekeeping function are necessary to protect against damage to property. As posited by Shawn Regan (who has, as discussed earlier, been tracking innovative sharing economy approaches to natural resources access problems), markets for access are about finding ways to allow access without losing the benefits of control that allow owners to protect their property.²¹¹ As he explains, private control over access with facilitation of inclusion by technology becomes “about finding the right ways to contract with landowners to reduce the risks of allowing access” rather than being about owners trying to lock out others.²¹²

In countries with free roaming via mandated access, there is very little incentive to care for and to avoid exploiting the resources. The tragedy of the commons kicks in for any resource for which one did not have to pay, one did not have to bargain, and when the owner of the land has limited rights to expel wrongdoers. Claeys projects this possibility:

A roamer wants to derive present enjoyment from crossing a particular plot of land. It can seem churlish for an analyst to point out that, once roamers have some right to enter land, they might not stick to the trails or stick to hiking. Furthermore, the concerns that trouble landowners—lack of security, risks of accident—are not certain to occur, and the resultant harms will take years to arise if they ever really occur.²¹³

Free roaming rights granted by the state but without any immediate owner policing them risks overuse, depletion, and abuse of resources and activities more difficult to monitor and control.²¹⁴

Regan explains that, “Landowners, like all property owners, need to have some control and protection against damages. The sharing economy can provide that.”²¹⁵ Through GPS technology associated with the smart phones that were used to enter into the roaming agreement, for example, owners could track where and when a particular roamer was in an area.²¹⁶ So, if a fire started, vandalism occurred, or ecological resources were otherwise damaged, the owner could track down the responsible party (such as by knowing when the fire started and who was there at the ignition point when it did). This could facilitate direct action against the roamer for damages, or, as is often useful in other parts of the sharing economy, the owner

210. Jonathan H. Adler, *Free & Green: A New Approach to Environmental Protection*, 24 HARV. J. L. & PUB. POL’Y 653, 662 (2001) (“Centralized regulatory agencies are ill-equipped to handle the myriad ecological interactions triggered or impacted by private activity.”).

211. Regan, *supra* note 35, at 39.

212. *Id.*

213. Claeys, *supra* note 9, at 463.

214. See Adler, *supra* note 210, at 668-69 (generally discussing commons risks).

215. Regan, *supra* note 35, at 39.

216. Hynes, *supra* note 32, at 977-78 (Noting that “One South Dakota program already bases landowners’ compensation on the amount of use by hunters, and technological advances could make it much easier to track land usage by recreationists,” although recognizing potential cost concerns for users and privacy risks.).

has the ability to negatively affect the roamer's reputation in the roaming community. The risk of a bad rating with its consequential effects (such as a low score that makes other owners refuse access) would serve as a deterrent against bad behavior while on another's land.

A free but mandated roaming regime has none of this. When individuals have an entitlement to roam granted by the state, their entry, ingress and egress are not tracked. The owner will not know who was on their property or when, so seeking damages would be futile. Moreover, the roamers will be unidentifiable nomads with little risk of reputational consequences for bad behavior, removing a key deterrent to poor stewardship while on the lands. The state will not have the resources to monitor or track behavior. Indeed, it may not even have the power to do so given that the activities will be on private land burdened by roaming rights. In contrast, private owners who exchange roaming rights will more often be on the property because they are occupying it or caring for it on a personalized level rather than a distant public manager, in proximity to the activity so more likely to observe behavior at a low cost, and, as stated before, they have an incentive to watch their land resource.

In fact, landowners who engage in the roaming-sharing market have another incentive. The burdened-by-bargain landowner may have a new reason to preserve the resources that attract roamers—maintenance of the character of the ecological resources that attract these new trading partners in the first place. The roamer-customers may represent a profit stream that flows from transacting in roaming rights. If roamers like one's property because of the beautiful landscape, owners will take seriously threats to that landscape and protect against them. Thus, by aligning the interests of the owner with the interests of the roamer, the owner's sensitivity to the natural ecological resources will be heightened.

X. CONCLUSION

There are ecological resources in private property that can be shared by more than the owners of the property. But it is the preservation and extension of property rights that will generate the most efficient, fair, and effective sharing of those resources, not mandated controls that force access and inclusion.²¹⁷ By preserving a property owner's rights to manage the gates on her land, we give her the power and incentive to open those gates. The constantly improving technology facilitating exchanges in underutilized assets of land gives property owners the means to negotiate exchanges for opening the gates as well as ways to monitor and prevent harms to their land once the gates have been opened.

We should not allow progressive property scholars to control the narrative that inclusion is only possible through coercion and that roaming rights can only emerge through mandates. That narrative is simply one that seeks to diminish the importance and chip away at the sanctity of the right to exclude in a system of private property rights.

This article provides a challenge to those who would advocate for statutorily-compelled roaming rights. It forces a debate about whether market

217. Adler, *supra* note 13, at 1022 ("Private property is not the enemy of conservation; it is its foundation.").

mechanisms for roaming could accomplish some of the same goals but through better means more respectful of property rights traditions. Gates which expand access to ecological and other resources can be opened through consensual exchange. Embracing exclusion and encouraging technological innovation in land access exchange seems a far superior place to focus the roaming energy.