

How Technological Advances Can Reveal Rights

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Abstract

Over recent decades, technological development has been accompanied by the proposal of new rights by various groups and individuals: the right to public anonymity, the right to be forgotten, and the right to disconnect, for example. Although there is widespread acknowledgment of the motivation behind these proposed rights, they seem more strongly tied to a contingent social-technical context than one expects for more “traditional” rights. We propose the notion of a *revealed right*, a right that only imposes duties – and thus is only meaningfully revealed – in certain technological contexts. We provide a framework, based on interest theory, that explains the nature of revealed rights and the connection between (i) their revelation and (ii) the way that technology alters the power that parties have to promote aspects of their well-being. Improved technology can offer resources that grant one party increased causal power to realize its interests to the detriment of another’s capacity to do so, even while the interests of the former remain significantly less morally weighty than those of the latter. Such changes in circumstance can make the importance of protecting a particular interest newly salient, in which case a right is revealed.

Introduction

New rights concepts have gained support in the wake of developments in the realm of information and communication technology. There are now numerous claims, some enshrined in court decisions or law, that people have some new right as a result of technological shifts. For example, each of the following have recently been proposed as “rights”:

- The *right to be forgotten*: an individual’s right to have some data about themselves (largely in search engines) be deleted.
- The *right to disconnect*: a worker’s right to disengage from work-related electronic communications after hours.
- The *right to public anonymity*: an individual’s right to be free of identification and/or tracking in public spaces.

These (and others) have all been proposed as rights, though rarely with much clarity about the source, nature, and scope of that right. Although there is shared acknowledgment that the underlying motivations are sensible, there is little agreement about the nature of these “rights,” or even whether they are true rights in the first place. Moreover,

only a handful of legal systems have enshrined them as legal rights. For example, the right to disconnect has been established only in France, Italy, and the Philippines, though Germany has policies to similar effect. The right to public anonymity, although seemingly popular among citizens, has been almost entirely dismissed as worthy of legal protection, at least in its stronger forms (Slobogin 2002).

Most of the debates around these potential rights have focused on legal or policy questions. However, their proposals involve normative issues beyond questions of practical enforcement or legal consistency. For example, in the United States, the right to be forgotten has been criticized for potential inconsistency with the First Amendment, but also on social and moral grounds like the possibility that such a right could create a massive censorship power or weight a minor interest (criminals seeking to hide their pasts) over a major one (public safety) (Hill 2018). On what grounds, or in what cases, should we consider such proposals “actual” rights? If they are rights, did they exist prior to the development and introduction of the relevant technologies, or did they come into existence only once the technologies were deployed? Clarity about the philosophical nature of one or more of these potential rights requires answers to these questions.

We propose the notion of a *revealed right*: a right that only plays a meaningful role (i.e., imposes duties) in certain technological contexts, and so can exist without recognition in many situations. We then apply this notion to the interpretation of recently proposed “rights.” This paper will not resolve the question of whether specific rights, such as the right to be forgotten, actually exist. Instead, we aim to provide a framework for understanding the nature of such potential rights, and thereby provide the empirical questions that would need to be answered to establish the existence of such a right. As a result, we largely sidestep questions about the precise metaphysics of rights. We will, however, confront the question of how, in principle, such rights could be justified.

We assume there is an important relationship between the nature of rights and an individual’s well-being. A legitimate right should protect something key to well-being. The justification for holding a party to a duty associated with a right derives power from the importance of that aspect of well-being, and how that duty would promote or protect it. For this reason, we use an interest theory approach to analyz-

ing rights. Such an approach understands rights in terms of a justificatory role: morally important aspects of a person's well-being (interests) ground rights, which then justify holding someone to a duty that promotes or protects that interest. Given the importance of well-being, such a theory provides tools for interpreting conflicts that lead to revealed rights in terms of how technological developments cause shifts in the balance of power to promote particular interests.

While we think it is indisputable that well-being is morally important in a way that grants normative force to rights, we also recognize that an interest theory approach to rights is not universally accepted. After presenting our framework and demonstrating how it might be applied, we will consider both objections to our account, and ways our framework might accommodate other accounts of rights.

The Nature of Revealed Rights

We begin with the assumption that rights serve, at least in part, to protect and advance the interests of right-holders. In this context, an *interest* of an individual *A* is a stake in the well-being of some party—perhaps their own, perhaps another's—that is relevant to *A*'s goals, values, and success. Of course, not all interests are equally strong or weighty; those distinctions will be relevant below. Attribution of an interest to a party simply involves recognition of that party's concern with something that benefits their "prosperity," whether directly or indirectly (Sperling 2008).

On an interest theory of rights, these stakes or interests provide a grounding for one's rights. That is, one has rights because they provide protection and support for one's interests. The best-known version of interest theory is Raz (1984; 1986), though our account does not depend on details of his specific formulation. In slogan form, the basic idea of an interest theory of rights is: *interests ground rights, which justify duties*. Specifically, rights justify duties for oneself and others to act in ways that support those interests.

Interests provide the basis for a particular kind of moral claim, but only successfully justify a right if they provide sufficient reason to justify holding another party to a duty, all things considered. That is, an interest is necessary for having a right, but not sufficient on its own. Moreover, the "another party" qualifier is very important, as there must be some agent that can be held to a relevant duty. The eruption of Mt. Vesuvius infringed on the interests of countless people, but the volcano had no duty to which the people of Pompeii could justifiably hold it.

Rights are not perfectly correlated with duties; a right is not defined by the duties that it justifies. Rather, interest-based rights can ground or justify a range of duties, depending on empirical contingencies that cannot be known *a priori*. In particular, one might have a right justified by an interest, but no need to hold anyone to a duty in order to support that interest (see example below). Hence, new duties can arise with new circumstances, or when existing circumstances are modified by the introduction of new variables or factors. Thus, it is not surprising that we could have new rights that are noticed (in some sense) only where there are particular technological developments: changes in context

can lead to changes in the sets of duties that are supported by particular rights without altering the rights themselves.

Earlier, we cast proposals like the right to be forgotten as candidate *revealed rights*; that language should now be clearer. Human well-being is affected by contingent details of the contexts we inhabit. Certain stakes in our well-being are salient—more specifically, appreciated as in need of protection—only when certain contextual factors obtain. Technological developments change our contexts in important ways, such that some interests are no longer protected or promoted, or they might be in need of protection for the first time. As a result, rights grounded in these long-standing interests are *revealed* to us: they now justify duties that were not previously needed.

The use of 'revealed' emphasizes the role of the aspect of well-being that grounds the right. If an interest is morally important under one's preferred theory of well-being, then one has a right to protect that interest, regardless of whether any active protection (i.e., duties) is required in one's particular socio-technical context. The corresponding right—a reason to hold another party to a duty—exists because of the interest, independently of whether any duties actually result. The arrival of a technology can change the context so that new *duties* arise, but the right was always present.

When technological changes change our capabilities, rights can be revealed due to alterations to the duties that can be justifiably imposed on another person. As a fanciful example, suppose I have a justifiable interest in not having people teleport into my house, and so (all else being equal) a right to not have people suddenly appearing in my abode. At the current time, this right does not impose any duty on others: teleportation is not possible, and so there is nothing that others must refrain from doing. Others have no duties associated with protection of that interest. If teleportation were suddenly possible, though, then my interest would be vulnerable, and so people may face duties grounded in my "right to non-teleportable spaces." This right is revealed because of technological changes that provide others with new capabilities to infringe on the justifying interest.

Of course, real-world examples have significantly more complexity. In particular, there are typically many competing interests and capabilities. The details of a particular revealed right (or not) will depend on (i) the moral weight with which a particular interest *I* can ground duties, and (ii) the causal power that an interest-holder has to promote *I*.

Moral Weight and Causal Power

Different individuals can have conflicting or competing interests, but some interests are more normatively important than others, even if only within a particular cultural or legal framework. For example, it is generally accepted that free speech and autonomy are sometimes outweighed by the interest in physical safety, as when one has a duty not to yell "fire" in a crowded theater. We can refer to this type of difference by saying that the former interest has less "moral weight" than the latter interest (for those individuals, in that context).

The moral weight of an interest is connected to its contribution to the interest-holder's overall well-being, and

thereby determines the strength of the reason that a corresponding right provides to justify a duty. A full theory of moral weight (hereafter, just “weight”) would thus require defense of a substantive theory of interests, since the weights will depend partly on one’s theory of well-being. Our paper is focused on revealed rights, not any particular substantive theory of interests. Hence, our characterization of weights has a “free parameter” that would need to be provided to derive exact weights.

In any given situation, there are not only differences among the weights of particular interests, but also differences in the amount of causal power (hereafter, usually just “power”) that parties have to promote those interests. For example, the police have far more power than average citizens to promote our shared interests in public safety, due to various social and legal structures. Similarly, legal structures in the United States aim to ensure that my power to promote my interest in not incriminating myself is greater than the police’s power to promote their interest in my confessing to a particular crime.

In many cases, social and legal structures have developed partly to ensure that individuals with weightier interests also have greater interest-promoting power. However, this alignment need not hold; the two orderings can come apart in important ways. For example, a prisoner of war has quite weighty interests in avoiding harm and living in safe conditions, but also essentially no power to fulfill those interests.

Revealed rights are bound up with this type of divergence. In particular, technological developments can introduce new capabilities and thus new powers, thereby increasing or decreasing the divergence. Suppose Alice and Bob have conflicting interests, but Alice’s interests carry more weight. In this case, we would prefer *ceteris paribus* that Alice have greater power to realize her interests, and might create social or legal structures to ensure that she has more power. However, technological changes could shift the balance of power, creating a situation in which Alice’s weightier interests cannot necessarily be realized. A moral problem can result if the orderings of moral weight and causal power diverge.

Rights as protectors of interests now become relevant. As Alice has the morally weightier interest, she has the right to protect that interest against infringement by Bob. If the technological change eliminates Alice’s ability to protect that interest, then she may now have sufficient reason to hold Bob to the duty not to use his greater power to infringe on her morally weightier interest. A right is thereby “revealed” since the change in context, and so relative power, creates a need for a new duty for Bob. Alice’s weightier interests did not previously require duties for their protection; technological change (and the corresponding shift in causal power) creates a need for such duties.

The Appearance of Revealed Rights

Revealed rights justify realignment between the moral weight and causal power orderings so that people with weightier interests have greater power to protect those interests. This account thus depends on our ability to determine who has the weightier interests. In practice, one can

rarely “measure” the relative moral weights of various interests. Hence, many legal and social processes have implicitly assumed alignment between the power and weight orders. That is, the “mere” attempt to perform an act that serves an interest is taken as evidence that the interest is important. If someone is willing to perform a costly action, then I have *prima facie* evidence that the person has a substantial interest at stake. However, technological change can significantly complicate this inference, as some actions get much easier, so their performance need not indicate any substantive moral weight behind the interest. Instead, legal enshrinement of the revealed rights (and so legal enforcement of relevant duties) may be required to balance the weight and power orderings.

Consider a situation in which the police are considering extended surveillance of someone who is suspected of a crime, but where there is not (yet) definitive evidence. The police have a general interest in protecting the public, and a more specific interest in tracking this individual’s movements. An individual citizen has an interest in not being subject to unnecessary searches or surveillance, though that interest can be morally outweighed by the public interests of the public. Prior to the invention of GPS technology and covert tracking devices, long-term surveillance of a suspect required considerable effort and manpower. Hence, the police were unlikely to mount a large surveillance campaign against a suspect without a weighty motivating interest. The police’s decision to engage in long-term surveillance thus provided evidence of the presence of a weighty interest assumed to outweigh the suspect’s privacy interests.

However, long-term surveillance is now significantly easier, and does not require large amounts of time, effort, and manpower. Technological developments provide the police with power to advance their interests that is arguably disproportionate to the moral weight of those interests (Supreme Court of the United States 2012). Current legal structures may thus mistakenly assume that the weight of public and police interests are greater than they actually are, and even conclude that police interests outweigh those of individual citizens in a particular case. In other words, the police decision to engage in practices such as long-term surveillance could offer a “false positive” that incorrectly indicates the presence of a weighty public interest. GPS technologies thus reveal a right—roughly, not to be subject to low-cost extended surveillance—that is necessary to protect the private individual’s morally stronger, but causally disadvantaged, interest. This revealed right then justifies a duty by the police to not engage in such long-term surveillance, unless it is truly necessary for public safety or other broader interests (that can outweigh the individual’s interest).

In general, there is no straightforward principle linking the properties of technologies to a need to enforce particular duties. Much depends on the particular use-in-context of the technology. The same algorithm that could be used to, say, strip people of their privacy could instead be used to help identify people who need assistance. The same technology might thus justify enforcement of a revealed right in one context but not others. The impact of a technology depends on the speed and power of the technology, public knowledge about the technology, barriers to its use, and so forth. These

all affect whether the technology threatens or supports the desired relationships between weight and power.

Nonetheless, we can extract a *basic scenario* involving revealed rights:

Parties *A* and *B* have conflicting weighty interests. Technology *T* enables *A* to better promote its interests, and harms *B*'s ability to do so, thereby altering the relationship between causal power and weight-of-interests among the parties.

Importantly, this “conflict of interests” does not assume malice by party *A*. *A* might threaten *B*'s interests entirely unintentionally, such as when *A* and *B* both have stakes in a limited resource, but *A* develops a technology that increases their ability to extract or claim that resource (relative to *B*'s ability). If *B* has a weighty interest in that resource (e.g., if the shared resource is the only water source), then *A*'s superior technology will infringe on *B*'s interests, independently of *A*'s motivations. Moreover, this infringement can occur even if there was no reversal or tectonic shift in the balance of power. The shift can still reveal *B*'s right, and thereby justify new duties for *A*.

Our discussions have been relatively abstract, and so we now apply this framework to two social-technical situations that prompted our paper: consideration of the right to be forgotten, and of the right to disconnect. The differences between our analyses of these two proposed rights also highlights the importance and challenge of weighing multiple interests to determine if a particular duty is justified.

Right to Be Forgotten

The right to be forgotten, interpreted most strictly, refers to a supposed right for individuals to request that search engines remove particular search results if certain criteria are met. Historically, someone with a poor reputation due to past actions might hope to leave that reputation behind by moving to a new city or simply waiting for collective memory to fade. However, the development of powerful search engines has enabled information tied to one's past incriminating or humiliating status to be publicly and *permanently* available. This threat is further exacerbated by tools like Facebook's facial recognition system, which automatically identifies and suggests users to “tag” in photographs, regardless of how compromising they are (Shankar and Mishra 2016). Such technological development has shifted the relative causal powers between an individual and their community.

There are many interests at work in these cases including: (i) privacy and anonymity concerns; (ii) individual and group interests in freedom of expression (Mamo 2012); (iii) people's interest in securing information possibly relevant to their safety (e.g., does their neighbor have a violent past?); and even (iv) interests (albeit, quite weak ones) in satisfying one's curiosity (Ghosh 2018).

On our framework, a possible right to be forgotten is revealed if the shift in causal power creates a need for some legal enshrinement of a duty, such that individuals' interests (e.g. in not being bound by irrelevant past mistakes) can be supported and advanced appropriately for their (rel-

ative) moral weight (Heilweil 2018; Peltz-Steele 2014).¹ Of course, precisely because of the complexity of the situation, the various interests must be carefully weighed, and one's substantive theory of well-being can ground different duties depending on details of particular classes of cases. For example, there may be a duty to remove links to past mere humiliations upon request, but not to records of recent violent crimes. The key in any analysis is the recognition that the technological shifts can lead to changes in the balance of causal power that enable the promotion of interests to a degree that is misaligned with those interests' moral weight. Legal enshrinement is, if it is warranted, a means to establish duties that protect a prior right that is revealed by the technological shift.

Right to Disconnect

Prior to widespread internet access, email, and smartphone use, it was impossible (or at least, prohibitively difficult) for many employees to complete work tasks outside of their regular hours. They would need to be on-site to communicate with customers or access important files. However, technological developments have disrupted the default patterns of work. Telecommuting has become a common way to supplement in-office work hours (Noonan and Glass 2012), and perceptions about expectations for worker availability have shifted due to increased accessibility (Thompson 2014).

Technological changes have provided employers with significantly greater causal power to advance their interest in constant employee connectivity, even though the moral weight of that interest has not changed in any noticeable way. These new technologies, and associated expectations, enable employers to advance their interests at the cost of the employees' interests in work-life balance, non-exploitation, and overall well-being. In places like the United States with at-will employment, there was arguably already a misalignment between causal power and moral weight of interests (of employers vs. employees) due to limited labor laws. Technological advancements have exacerbated this misalignment.

On our framework, the claim that there is a moral *right* to disconnect translates to the claim that employers' causal power to realize their interests is now stronger than the moral weight of those interests, relative to those of their employees. Hence, employees' rights to protect their interests of work-life balance, safety from exploitation, and well-being are revealed through the creation of duties (for the employers) that protect those interests. In some conditions, we may even need to create legal structures to enforce those duties, as has happened in France (Ministre du Travail 2017; Boring 2017).

If our substantive account of well-being implies that employees' interests in work-life balance and non-exploitation have a sufficient justificatory force, then the right to disconnect has been *revealed* by the technology. The underlying

¹Of course, other interests might also be protected by such a right such as: protecting the safety of transgender individuals by keeping stigmatized features private; or protecting the mental health of relatives of accident and suicide victims by preventing online dissemination of graphic photographs from the event.

interests have always existed, but the technological context meant that they were readily balanced without any need for additional duties. However, the shifting balance of power threatens employees' interests in an unjustified way, so the right was revealed to justify a particular kind of duty.

Other Factors and Associated Limit Cases

Given a substantive theory of interests and their relative weights, particular duties (e.g., that would benefit from legal enforcement) arise only when a right is revealed by some technological change. Such emergence depends on a number of factors, including: whether the technology is sufficiently common to have a wider, social impact; whether the plausible uses of the technology could potentially impede another's well-being or interests; and whether the technology has actually changed the balance of power sufficiently to yield a frequent possibility for misalignment between causal power and moral weight. Three interesting kinds of limit cases can be identified by thinking about these factors.

First, a new technology *could* be used to distort the balance of (causal) power and harm weighty interests, but that same technology (or its relevant capabilities) is little-known, prohibitively expensive, hard to utilize, or otherwise unlikely to be used regularly. For example, technology to fake audio or video footage has existed for many years, but was quite expensive, difficult to use, and rare. One's interest in not having faked video of oneself was not under serious threat by that technology, so there was no weight-power misalignment that would require institutional remedy. Much like long-term police surveillance, there was no need for a relevant duty, as the willingness to pay the costs (time, energy, money) to use the technology signalled that one was in a special case with different weights on the interests (e.g., an interest in freedom of expression for satire creators).

Artificial intelligence has made it very easy to obtain and use "fake video" technology for personal gratification, political sabotage, or simply to harm others' interests (Cole 2018; Ehrenkranz 2018). Deepfakes, Adobe's Voco, and other software have plausibly revealed a "right not to faked video (audio) of oneself," as we recognize the need for a duty (by others) to not use this software for nefarious purposes. Our personal interests in being able to trust evidence presented to us, and our interests in not being the victims of slander or libel, face threats that suddenly have substantially increased causal power. The weight of those interests together with the need to defend them plausibly provide strong reasons to hold others to a duty not to use that technology.

Second, some technologies have significant positive affordances that are nonetheless consistently outweighed by that same technology's potential use to impede or harm interests. For example, advocates of nuclear disarmament often argue that the power to eliminate cities' worth of people, and the continued humanitarian ramifications of any blast, are such a profound threat to citizens' interests that an international ban on the weapons is necessary to adequately protect our human interests (International Campaign to Abolish Nuclear Weapons 2017; Wilson 2015). States have significant interests in power consolidation and deterrence, and nuclear weapons powerfully support those interests. However, they

are also almost always less weighty than citizens' interests in survival, health, and stability, at least when a state is not facing an existential threat.

Whether some interests have this overriding power will depend on one's substantive theory of well-being. In particular, if certain interests always trump other interests, then we should expect to see some technologies essentially ruled out *a priori* since the user's interests for the technology would almost never outweigh the interest of a victim to avoid being subject to its use. Hence, it would be reasonable for the legal system to enshrine the right through a ban on that technology. Even without an explicitly lexicographic account of interests and well-being, these scenarios are possible if certain interests are much weightier than others. In such cases, banning the disruptive technology would help ensure the right correspondence between causal ability and moral weight.

Finally, technological developments can actually alter the relationship between power and weight orderings for the better by *improving* their alignment. For example, citizens are generally thought to have an interest in access to information about government activity (e.g., to prevent systematic abuse of funds), often legally enshrined through "sunshine laws." Even with such laws, a government official can have more power to obscure his actions (i.e., support a less weighty interest) by releasing a flood of unstructured, non-searchable information. This imbalance has been mitigated by optical character recognition (OCR) technology, which allows organizations to create searchable copies of available documents (Joffe 2012). This technological change plausibly increased the amount of relative causal power citizens had to protect their interests, and thus helped *better* align the power and weight orderings.

Our framework provides a powerful lens through which to understand rights that are revealed through technological development, including an explanation of why the rhetoric of "new rights" is both accurate (since the rights were not previously recognized) and inaccurate (since the rights were present all along, but without corresponding duties). We now turn to several sources of potential confusion about the account, which will also help to clarify our framework.

Concerns and Confusions

A common criticism of interest-based rights accounts is that they are overly permissive in terms of granting rights. Contingent factors such as political context and technological development are thought to imply many rights claims, including ones that are *prima facie* implausible. In general, many "interests" seem to emerge from new technological developments. For example, the availability of technology to alter movies has led some directors to go back and modify their older work, sometimes provoking severe backlash. For example, *Star Wars* fans have claimed an interest in preventing George Lucas from distorting or destroying the original version of the first *Star Wars* trilogy, claiming they have a *right* to preserve the unmodified versions. They suggest George Lucas has a *duty* to refrain from editing it further or destroying the original negatives (Philippe 2010). This case looks to be (distressingly) similar to the basic case for revealed rights, as there has been a shift in causal power with-

out shift in moral weights. Fortunately, the mere existence of an interest is not enough to ground a right. We can grant the fans' interest without thereby concluding that George Lucas has a corresponding duty, since their interest is less weighty than his interests that would be infringed upon.

Importantly, though, the fans' claim to a right in the *Star Wars* case is precluded because of substantive considerations about rights. The relative weights of various interests are not fixed by our framework, but rather require a principled substantive theory of morally important interests.² The framework we have provided merely offers a schema that requires (information about) a substantive theory of interests to determine whether technological change reveals some rights.

A second concern is that revealed rights seemingly lack some essential connection to well-being interests. They seem too "derivative" to be real. However, we do not balk at other seemingly "non-fundamental rights" being described as rights. Many of those rights, like the right to an education, share with revealed rights the property of being mysterious without other contingent societal factors, such as institutional education systems. Relatedly, one might object that revealed rights are too particular to be truly rights. However, this worry overlooks the fact that we frequently talk about highly particular rights in both moral and legal contexts, like a right to an attorney or the aforementioned right to education. Such rights are not merely legal rights, but clearly involve moral components, else we would not be able to make sense of, for example, claims that totalitarian countries deny their citizens' rights of free speech, assembly, or self-determination.

The third objection focuses on our use of an interest-based framework for rights. According to *will* or *choice* theories, the function of rights is not to protect interests, but to give right-bearers control over the duties of others (Hart 1982). Rights in these theories are claims that the holder has the choice to either enforce or waive relevant duties (hence "choice theory"). For these accounts, a true claim of a right requires rational understanding of what it involves, since our status as rational agents grounds rights in the first place. Revealed rights do not seem to fit cleanly with choice or will theory approaches to rights.

We contend that there are good reasons to think that an interest rights approach is more apt for understanding the phenomenon at hand. The technologies that lead to the illumination of revealed rights are often: extremely complicated, require processing unfeasible amounts of information, or involve rapidly shifting embedding conditions. Hence, agents may fail to understand the actual content of what they are claiming or waiving with respect to any purported right. But then we seemingly have no rights at all under a choice theory, since we lack control and rational understanding.³

We contend that this conclusion by choice theories provides little guidance in these cases, and so we have reason to

²We conjecture that most such theories would privilege interests in control of one's property and freedom of speech, over the interest of *Star Wars* fans in preserving the sanctity of the Original Trilogy.

³As an analogue, consider concerns about the use of opaque Terms of Use contracts to enable exploitation of customer data.

pursue our interest-based framework. In general, we adopt a pragmatic, pluralist stance that each interpretation represents a valid notion of rights with important uses in their respective domains of application (van Duffel 2002). We choose to use interest theory here because it is generally more helpful for understanding how revealed rights could be possible. At the same time, we conjecture that these situations could also be analyzed using choice theory if one focused on the relative autonomy of interacting parties, though at the cost of maintaining some possibly-undesirable commitments in these complex technological situations (e.g., absence of rights given cognitive limitations).

Finally, one might worry that these cases involve the actual creation of a new *interest* (and so rights), rather than merely revealing pre-existing rights. One might argue, for example, that the right to disconnect is justified by an interest, say, to not be bothered by messages on Slack. That interest (and so the right) clearly could not exist prior to the creation of the Slack technology. In general, shifts in interest-relevant contexts yields a continuum of possibilities, ranging from (a) creation of a new interest and so the possibility of a new right, to (b) a new instantiation of a pre-existing interest and so possibly a revealed right. We contend that the Slack case is closer to (b), so the relevant right is revealed, not created. At the same time, we acknowledge that there could be cases closer to (a) in which a new interest is created, and so a new right could emerge.

Conclusion

The rapid pace of technological change over recent decades has been accompanied by a rapid rise in the number of rights being claimed by various groups and individuals. We have provided a framework, based on interest rights, that explains the nature of revealed rights, and the connection between their revelation and the way that technology changes the balance of causal power. We normally assume that causal power to satisfy an interest tracks the moral weight of that interest, but technological change can upend that alignment. One party might have greatly increased causal power to realize its interests, even though those interests remain significantly less weighty than those of another party. In such cases, a right (grounded in the weightier interests) may be revealed as a result of these technological shifts.

We have said relatively little so far about the precise form of these rights, or about the steps that should be taken to ensure that they are honored. In fact, the observant reader might note that we have not even taken a stand on whether there really is, for example, a right to be forgotten. Our framework requires a substantive theory of rights as an input, and so the framework alone does not tell us much about whether various revealed rights obtain; we instead need to specify that "free parameter." Another reason for our focus on framework is because we believe that many different realizations of revealed rights could be possible (when such rights obtain). Sometimes, they should be enshrined in laws and regulations, other times in social norms and practices. Investigations into the normative implementation of particular revealed rights are thus significantly larger than we can examine in a single paper.

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References

- Boring, N. 2017. France: Right to disconnect takes effect. Online.
- Cole, S. 2018. There is no tech solution to Deepfakes. *Motherboard*.
- Ehrenkranz, M. 2018. Researchers come out with yet another unnerving, new Deepfake method. *Gizmodo*.
- Ghosh, S. 2018. Google is fighting a big, messy battle over whether expanding the 'right to be forgotten' amounts to censorship. *Business Insider*.
- Hart, H. 1982. *Essays on Bentham: Studies in Jurisprudence and Political Theory*. Clarendon Press.
- Heilweil, R. 2018. How close is an American right-to-be-forgotten? *Forbes*.
- Hill, R. 2018. Expanding right to be forgotten slippery slope to global censorship, warn free speech fans. *The Register*.
- International Campaign to Abolish Nuclear Weapons. 2017. Arguments for nuclear abolition. Online.
- Joffe, M. 2012. OpenGov voices: Local government financial transparency: Scaling it up. Online.
- Mamo, A. 2012. Tradeoffs in the right to be forgotten. *Harvard Civil Rights - Civil Liberties Law Review Blog*.
- Ministre du Travail. 2017. Droit à la déconnexion. Online.
- Noonan, M. C., and Glass, J. L. 2012. The hard truth about telecommuting. *Monthly Labor Review* 38–45.
- Peltz-Steele, R. J. 2014. The 'right to be forgotten' is really a right to be forgiven. *The Washington Post*.
- Philippe, A. O. 2010. The People vs. George Lucas. Film.
- Raz, J. 1984. On the nature of rights. *Mind* 93:194–214.
- Raz, J. 1986. *On the Nature of Rights*. Oxford University Press. chapter 7, 165–192.
- Shankar, S., and Mishra, P. 2016. Facebook loses first round in suit over storing biometric data. *Reuters Business*.
- Slobogin, C. 2002. Public privacy: Camera surveillance of public places and the right to anonymity. *Mississippi Law Journal* 72.
- Sperling, D. 2008. *Posthumous Interests: Legal and Ethical Perspectives*. Cambridge University Press.
- Supreme Court of the United States. 2012. United States v Jones. *United States Reports* 240.
- Thompson, C. 2014. Are you checking work email in bed? At the dinner table? On vacation? *Mother Jones*.
- van Duffel, S. 2002. The nature of rights debate rests on a mistake. *Pacific Philosophical Quarterly* 93:104–123.
- Wilson, W. 2015. Making the realistic case against nuclear weapons. Online.