

## CAPABILITIES, SPILLOVERS, AND INTELLECTUAL PROGRESS: TOWARD A HUMAN FLOURISHING THEORY FOR INTELLECTUAL PROPERTY

BRETT M. FRISCHMANN

ABSTRACT. Courts, commentators, and even casebooks mistakenly assume that intellectual property laws are fundamentally utilitarian and thus the relevant objective for intellectual property laws is maximizing social welfare. Economic theories of intellectual property dominate while rights-based theories and other alternatives struggle to remain relevant in the discourse. This essay accepts that intellectual property laws are consequentialist, but it mounts a challenge to the utilitarian theories that dominate. Following the path set by Amartya Sen in the area of development economics and borrowing heavily from the Sen's analytical and normative framework – the Capabilities Approach, this essay begins to develop a human flourishing theory for intellectual property.

### 1. INTRODUCTION

The dominant theoretical approach used to evaluate and guide intellectual property is economics. Among viable economic approaches, property rights theory dominates, although public welfare and regulatory economics also influence IP debates.

In various articles, I have worked within the utilitarian economic framework and used welfare economic theories to examine intellectual property systems. For the most part, I have been critical of the property rights theory and its view on internalizing externalities. Among other things, I have explored and emphasized the importance of nonrivalrous consumption of ideas<sup>1</sup> and the attendant potential for sharing and productive use of ideas – potential that can be *leveraged*. I have argued that the social benefits from sharing ideas may be substantial but quite difficult to observe and appreciate fully; the social benefits are often spillovers (positive externalities) that arise from a range of different activities and may cascade in idea-dependent

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<sup>1</sup>I will use “ideas” as shorthand for various intellectual resources.

social and economic systems. Yet, as Cohen (2007) has suggested, spillovers may be a thin reed on which to rest such a critique because it is hard to differentiate among, much less measure the impact of, various spillovers, and as a result, the economics discipline may not acknowledge or affirm the importance of alleged spillovers.<sup>2</sup>

It may be the case that dethroning, or at least, mounting a reasonable challenge to, the utilitarian economic theory of IP is best accomplished by looking outside the utilitarian economic framework, challenging the philosophical foundations utilitarianism sets, and utilizing a more appropriate normative metric to evaluate and guide IP law and policy. Some IP scholars, including Arewa (2007), Chon (2006), Cohen (2012), and Sunder (2012) have pointed to the Capabilities Approach developed and applied by Sen (1985, 2001 and 2005),<sup>3</sup> Nussbaum (2011), Nussbaum and Sen (2004) and others as an alternative approach to evaluating and guiding IP law and policy.<sup>4</sup>

The Capabilities Approach comprises a normative evaluation framework heavily influenced by economics but focused on capabilities rather than utility. Capabilities are opportunities or freedoms to realize actual, “real-life” achievements, or what Sen refers to as “functionalities.” Sen, Nussbaum and others employing the Capabilities Approach write about, *inter alia*, how society is, or would be, better off “investing” in the capabilities of individuals to be and do what they have reason to value.<sup>5</sup>

The Capabilities Approach could reorient our understanding of IP in interesting and useful ways. Simply put, the instrumental nature of IP fits well within the Capabilities Approach framework: the means of private rights would serve the instrumental purpose of promoting the end of progress, which could be evaluated in terms of capabilities rather than utility.

<sup>2</sup>See also Barron (2010).

<sup>3</sup>See also Alkire (2002).

<sup>4</sup>Other scholars have looked to a range of democratic and distributive theories, recently mapped and summarized by Bracha and Syed (2014) in terms of self-determination, political democracy, cultural democracy, and human flourishing. I am moderately confident that these democratic and distributive theories, which Bracha and Syed describe as “consequence-sensitive” rather than consequentialist, can be mapped and integrated into the CA framework. There is a correspondence between the underlying normative values or commitments in those theories and capabilities.

<sup>5</sup>Obviously, some of these terms are loaded with meaning. The concept of capabilities that individuals have reason to value (even if they in fact do not value them) is where the correspondence in the prior footnote may be found.

The Capabilities Approach meshes remarkably well with the spillovers concept too, though to date no one seems to have noticed. As I will argue in this article, *law-supported or facilitated* spillovers can be seen, at least in an important subset of cases, as *social investments in the capabilities of others*. In essence, society invests in capabilities *by* spillovers (third party benefits in the form of certain legally sanctioned freedoms to use valuable resources) and *for* spillovers (social benefits associated with and produced by a more capable community). Critically, such social investments are possible in large part because of the nonrival nature of the resources being shared. This last point helps explain an argument I have been struggling to articulate effectively for some time – that nonrival resources, unlike rival resources, present socially significant opportunities or potential because they can be leveraged productively to generate distributed, systemic benefits. Laws, such as copyright and patent, simultaneously allocate both private control (exclusive property rights) and public freedoms (public use rights) and thereby leverage nonrivalry and invest in capabilities (by and for spillovers).

In Section 2, I provide a brief explanation of the utilitarian economic theory of IP and my prior work on spillovers as an internal critique. Next, I discuss Sen’s development of the capabilities approach as an alternative to utilitarian economics (as well as rights based theoretical approaches). It provides the foundation for an external critique. I then highlight limitations in both the spillovers critique and the capabilities approach as an external critique. Finally, I suggest that some of the gaps left bare by the spillover critique may be filled by in the Capabilities Approach and vice versa.

Section 3 explains three ways in which law operates as a means for society to invest in capabilities: moral floors, social obligations, and leveraged resource allocation. Most of the Capabilities Approach literature that considers the role of law as means focused on moral floors, such as minimum capability-based standards for nation-states rooted in human rights or manifest in Constitutions. The social obligations theory developed by Alexander (2009) incorporates the normative values of the Capabilities Approach into property law. It provides

an excellent bridge to the theory developed in this paper and to the third way in which law serves as a means for investing in or supporting capabilities. Leveraged resource allocation, to my knowledge, has not received much, if any, attention elsewhere.

In Section 4, I begin to explore how to develop a more functional economic approach to IP that incorporates the capabilities approach. The functional approach would evaluate the interdependent relationships between people, resources and actions within complex nested (economic, cultural, political, and social) systems and the role of law and other social arrangements in mediating those relationships. Moreover, the approach would put utility aside as *the* measure of welfare – without casting it aside completely – in order to make room for capabilities as a measure of wellbeing (or perhaps a decent proxy). Critically, in Section 4, I explain how spillovers may be understood as social investments in the capabilities of others – or public capabilities. This reframing helps reorient the economic understanding of externalities and laws’ relationship with externalities.

## 2. UTILITARIAN ECONOMICS, SPILLOVERS, AND THE CAPABILITIES APPROACH

There are many theoretic approaches to evaluating intellectual property law. The utilitarian economic approach dominates. I discuss that approach first in sub-section 2.1. Then, in sub-sections 2.2 and 2.3, I discuss the concept of spillovers and the capabilities approach respectively. Each reflects a critical turn away from the utilitarian economics yet neither completely turns away from the underlying framework of economic analysis. That is, the spillovers concept and capabilities approach retain much of the analytical framework used by economists. The spillovers concept attempts internal reform, so to speak, by aiming (i) to reject casual dismissal of spillover effects that are not easily observed and quantified, (ii) to bring attention to the value of supporting spillover-producing activities, and (iii) to acknowledge and study the relationships between complex human and resource systems. The capabilities approach rejects the utilitarian objective of maximizing social welfare measured in utility (or attaining the “greatest good for the greatest number,” where “good” is equated

with utility) and develops an alternative normative objective(s) based in capabilities rather than utility.

**2.1. Utilitarian Economics<sup>6</sup>.** The utilitarian economic approach to intellectual property encompasses a constellation of economic theories, justifications, and explanations for the existence of intellectual property law. As a general matter, in adopting utilitarianism, the approach begins with its normative criterion – to maximize the aggregate utility of society, where utility is measured by happiness, pleasure and/or desire fulfillment. But how to achieve this objective through the means of intellectual property rights remains an ongoing, contentious, and ultimately intractable debate.<sup>7</sup>

*2.1.1. Incentives, Appropriation, and IP's Supply Side Orientation.* The conventional economic justification for intellectual property rights is that exclusive rights sustain the necessary incentives for private investment in creating the intellectual resources. Information resources face a well-known supply-side problem, common to public goods: the inability to (cheaply) exclude competitors and nonpaying consumers (free-riders) presents a risk to investors perceived *ex ante* (prior to production), and this risk *may* lead to undersupply. Essentially, in the absence of intellectual property law, there would be a significant underinvestment in *some* types of intellectual resources because of the risk that competitors would appropriate the value of the resources. Granting intellectual property rights lessens the costs of exclusion, raises the costs of free-riding, encourages licensing, and, as a result, makes a greater portion of the surplus generated by the production and distribution of intellectual resources appropriable by the rights owners.

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<sup>6</sup>This sub-section is drawn heavily from prior published work, especially my recent book Frischmann (2012) [hereinafter "Infrastructure"]. For brevity, I have pared the discussion down considerably and deleted many citations. The book provides a much more detailed discussion and an extensive bibliography.

<sup>7</sup>There is an incredibly wide variety of intellectual resources (inventions in any field imaginable, expressions on any topic in any medium, reputations, signs, symbols, data, ideas, knowledge, etc.), potentially subject to a wide variety of different legal arrangements we might call intellectual property rights (patents, copyrights, trade secrets, trademarks, design rights, database rights, rights of publicity, rights against misappropriation, and so on).

Most economic analyses of intellectual property focus on tradeoffs associated with exclusivity: Exclusivity is a supply-side concern relevant to assessing how well markets will function. IP rights improve the supply-side functioning of markets for intellectual products (inventions, works, etc.) as well as those markets further downstream for derivative commercial end-products. Though each raises additional complications, the reward, prospect and commercialization theories of IP<sup>8</sup> all take IP-enabled exclusivity as the relevant means for fixing a supply-side problem. The theories differ largely in terms of where in the supply chain IP-enabled exclusivity is needed and of the degree of control/exclusivity needed.

These theories take as a given that the market mechanism will best aggregate information regarding demand for such investment. Put in a slightly different way, the theories are premised on the notion that private investment in the production, development and commercialization of IP subject matter will be allocated efficiently on the basis of expected returns in downstream commercial markets, so long as IP rights are available to provide the necessary exclusivity. This premise connects with the idea, articulated well by Demsetz (1970), that markets efficiently aggregate, process and respond to information about what people want. In particular, the price mechanism provides a remarkably effective signal to producers about where to direct their investments.<sup>9</sup>

With a few exceptions,<sup>10</sup> there is very little consideration of this contestable premise, and there is no alternative demand side theory of what (intellectual) progress we want.<sup>11</sup> If we conclude that maximizing social utility is not the end, market-based efficiency is not likely to be the appropriate metric for evaluating resource allocation. In other words, if we reject utilitarianism as the overarching objective, then there is no dispositive reason to place trust in markets to effectively measure demand.

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<sup>8</sup>See, e.g., Landes and Posner (2003) (reward), Kitch (1977) (prospect), and Kieff (2001) (commercialization).

<sup>9</sup>See also Demsetz (1969), and Goldstein (1994) (making a similar point in the copyright context).

<sup>10</sup>Scholars have identified demand manifestation problems in the context of reusers. See, e.g., Cohen (2000), Lemley (1997), Loren (1997), and Cohen (1998).

<sup>11</sup>For further discussion, see Frischmann and McKenna (2011, 2014). For a postmodern approach to rethinking Progress, see Chon (1993).

Moreover, *even if we adopt utilitarianism*, there are many good reasons to question whether willingness to pay is a consistently effective mechanism for assessing demand where intellectual resource systems are involved because of the complexity of the systems and the prevalence of cascading spillovers.<sup>12</sup>

The supply side orientation of the economic theories coincides with more general economic theories of property and especially the idea that an important function of property rights is to internalize externalities. Drawing on earlier work, let me briefly explain the connections between externalities, markets, and property theory. (Those familiar with it, feel free to jump ahead!)

Externalities, whether positive or negative, are understood to be an important type of “market failure” – at times defined as the absence of a market.<sup>13</sup> The perceived problem is that externalities generally are not fully factored into a person’s decision about whether and how to engage in an activity and consequently may have a distorting effect on market coordination and allocation of resources. That is, too few (many) resources may be allocated to activities that generate positive (negative) externalities because those persons deciding whether and how to allocate resources fail to account for the full range of benefits (costs). If those unaccounted-for benefits (costs) were taken into account – *internalized* – the actors *might* behave differently, for example, by reallocating their resources in a more efficient manner.

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<sup>12</sup>In prior work (Frischmann, 2012, 2007 and 2009, and Frischmann and Lemley, 2007), I challenged the notion that the price mechanism works effectively in contexts where consumers productively use intellectual products in ways that produce spillovers. See also Frischmann and Hogendorn (2015). One might respond with the argument that the market mechanism should be the default unless it can be shown that an alternative (such as the government or commons-based systems) would outperform the market (Demsetz, 2008, at 131). A comparative analysis would help to identify contexts in which one mechanism or another might perform best. See Frischmann and McKenna (2014). Still, it is not clear, especially in the area of knowledge and information systems, that we should choose the market mechanism as the default. Such a choice risks systemic distortions that are not justified by mere reference to the generic advantages of decentralized decision making versus central planning. As Frischmann and Lemley (2007) (and others such as Wu (2005)) have argued, property rights can (over)centralize decision making when compared with commons or semicommons regimes.

<sup>13</sup>In forthcoming work, Mark McKenna and I explain why failures associated with externalities are not necessarily market failures; externalities are system-independent and arise in market, political and social systems (Frischmann and McKenna, 2014). The demand- and supply-side implications of externalities exist in these various systems and are not a product of the system itself. For reasons not worth explaining here, economists tend to focus on externalities as a paradigmatic example of a market failure. See also Demsetz (2011, 2008), who criticizes the tendency to consider externalities the failure of the market system.

The distortion manifests on the supply side in terms of undersupply or, in dynamic terms, reduced incentives to invest in what would otherwise be “optimal” supply. Of course, this problem can occur anywhere in the “supply chain.”<sup>14</sup> Observing the existence and measuring the magnitude of any distortion would depend on a counterfactual assessment of what would have been and generally would assume complete markets elsewhere in the supply chain. Not surprisingly, empirical evidence measuring distortions in incentives caused by externalities (or free riding) is incredibly hard to come by.<sup>15</sup>

The distortion also manifests on the demand side in terms of lost signals about what consumers want and where investments should be directed. The lost signals characterization follows from the notion of externalities as missing markets or unpriced exchanges, and thus depends on the premise noted earlier about the correspondence between market and social demand.

To avoid distortions associated with externalities, the standard economic solution is to internalize the externalities by pricing the exchanges or enabling missing markets to operate. How is internalization accomplished? For some time, most economists accepted Pigou’s (1932) view that the government ought to “intervene” via the tax or regulatory system and force externality-producing agents to fully account for their actions. Thus, those who engage in activities that produce negative (positive) externalities, such as pollution (education), should be taxed (subsidized) at a level that takes into account external effects and thus aligns private and social costs (benefits).<sup>16</sup> In “The Problem of Social Cost”, Coase (1960)<sup>17</sup> challenged the Pigovian tradition and added *well-defined property rights* to the menu of options for dealing with externalities. By definition (within economics), property rights are perfectly defined

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<sup>14</sup>This is one of the problems with partial equilibrium analyses in general. See Lunney, Jr. (2008).

<sup>15</sup>Arguments about incentives are often framed in terms of “free riding” or strategic holdouts where people don’t reveal their willingness to pay so they can free ride on others’ investments; these arguments are theoretical and often lack empirical foundation. See, e.g., Infrastructure, chapter 8, and Lemley (2005) (examining the free riding rationale).

<sup>16</sup>See Cornes and Sandler (1999), and Buchanan and Stubblebine (1962).

<sup>17</sup>For something shockingly new on this seminal article, which is the most cited article in law and in economics, see Frischmann and Marciano (2014).



only in a world without externalities.<sup>18</sup> Of course, the real world is not only afflicted with transactions costs, but also is awash in imperfectly defined property rights and externalities.

As Harold Demsetz (1967) astutely observed in his seminal article, “Toward a Theory of Property Rights”, such real world imperfections create demand for property rights evolution. Demsetz took a different approach than Coase and advanced a theory of property rights evolution where imperfectly defined property rights improve and evolve to meet societal demand for the internalization of externalities, taking into account the costs and benefits of internalization. According to Demsetz, “[e]very cost and benefit associated with social interdependencies is a potential externality,” and actual externalities exist where benefits or costs are not taken into account by interacting parties because “[t]he cost of a transaction in the rights between the parties (internalization) must exceed the gains from internalization.” Transaction costs may be prohibitively high for a variety of reasons, including the number of people involved, problems associated with tracing benefits and costs to responsible actors, strategic behavior, and so on. Beyond transaction costs, however, loom tremendous institutional costs associated with defining, allocating, and enforcing rights.

Demsetzian property theory seems to extend naturally to the realm of intellectual property. Intellectual activities and goods of many different types generate externalities of many different types, and the existence and persistence of such externalities and thus nonexistence of potential markets gives rise to demand for both internalization mechanisms, such as intellectual property rights, and corresponding markets.<sup>19</sup>

**2.2. The Spillovers Critique.** Spillovers theory reflects a critical turn away from the economic theories discussed above. It is an internal critique and attempts internal reform, by aiming (i) to reject casual dismissal of spillovers (third party effects) that are not easily

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<sup>18</sup>In such a world, the range of “sanctioned behavioral relations among economic agents in the use of valuable resources” is completely and unambiguously delineated. See Libecap (1994), and Demsetz (1998). As Libecap explains: “In the limit, if property rights are so well defined that private and social net benefits are equalized in economic decisions, benefits and costs will be entirely borne by the owner,” and thus there will be no externalities (Libecap, 1994, at 145).

<sup>19</sup>See Demsetz (1967, 2008).

observed and quantified, (ii) to bring attention to the value of identifying and supporting spillover-producing activities, (iii) to show how (certain types of) nonrival resources can be leveraged to support such activities, and (iv) to acknowledge and study the complex relationships between human and resource systems. The gist of the spillovers argument is that society may be better off by letting some externalities go without aiming to internalize them and, even further, by encouraging participation in activities that generate externalities (again, without aiming to internalize them completely). Not all missing markets need to be found. Non-market activities that generate social value are numerous and need not be converted into markets; they do not constitute failures at all.

In the context of intellectual property law, society accomplishes such ends through a variety of legal arrangements that enable sharing and productive use of nonrival resources – *leveraging nonrivalry*. The argument involves complex supply and demand side arguments that I will not reiterate here.<sup>20</sup> Instead, let me focus on two points of contention: first that externalities do not necessarily cause economic distortions, and second that even when they do, the distortions may be welfare enhancing – and as we will explore later in this essay, capability enhancing.

The first point is straightforward, though often taken for granted. Claims that internalizing externalities necessarily leads to changes in behavior (resource allocation) are overblown and not theoretically or empirically supported. Many externalities are simply “irrelevant.”<sup>21</sup> The externalities are irrelevant only in the very specific sense that whether or not the effects are internalized does not affect the intensity of their production.<sup>22</sup> That is, whether internalized or not, the actors don’t change their actions. To internalize or not to internalize is really a question of transferring wealth in such cases. While distributional considerations might warrant policies that aim to limit or promote such transfers, efficiency considerations do not. Critically, this point places a significant limit on the supply side rationale for internalization

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<sup>20</sup>See generally Infrastructure.

<sup>21</sup>See Buchanan and Stubblebine (1962).

<sup>22</sup>But those effects may be incredibly important and thus relevant from a social welfare perspective. Thus, we probably should not say that the externalities are irrelevant; instead, we should say that internalization itself is irrelevant. Alain Marciano, Giovanni Ramello and I will explore this issue in more detail in Frischmann, Marciano and Ramello (2017).

and the persistently overblown arguments about free riding and speculative diminution of incentives to invest. It also connects with the empirical observations made by many scholars that in *many* contexts, capturing value realized by others – through monetary returns or otherwise – is not necessary to support incentives to create.<sup>23</sup>

The second point is that even when internalization affects behavior and externalities are relevant, it may be best to leave them alone or even encourage their unmetered flow. It does not necessarily improve matters to internalize the externalities. Critically, this is the case not just because the administrative and institutional costs of internalization may be high (though that may be the case sometimes) but also because the reallocation of benefits or costs accomplished by internalization may affect the behavior of other actors besides the internalizing actor. This means that in contexts involving incentive-relevant externalities, the benefits and costs of internalization must include not only impacts on internalizing actors *but also impacts on third parties*. The impacts may include increases in welfare and capabilities.

It may be the case that letting or even encouraging spillovers to flow to third parties may be worthwhile for society. This is more likely where these third party beneficiaries are productive in ways that themselves generate social benefits. *Being productive* is a consequence of choosing to exercise a capability. As described below, in some cases, externalities can be understood as social investments in the capabilities of third parties who may choose to exercise the capabilities and engage in productive activities. Transforming the third party beneficiaries into licensees that must pay to act may shift their behavior, reducing the intensity of their productive activity or causing them to act differently altogether, and consequently, lead to less of the desired social benefits. This result is to be expected when licensees cannot capture the full value of their own activities – that is, where their activities generate positive third party effects. Under these circumstances, the licensees' private demand will fall short of social demand.

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<sup>23</sup>Infrastructure, chapter 12 (discussing many examples and collecting sources).

The demand manifestation problem may or may not lead to market failure. It may lead to under-participation in the spillover-producing activity and undersupply of the spillovers. It may lead to optimization of the input being licensed for a narrower range of uses than would be socially desirable. It may have no impact other than to transfer wealth from licensee to licensor. The point is simply that we cannot assume the market mechanism will best aggregate demand information and thus we need a better theory of demand in such contexts.

Thus, where externalities are incentive-relevant (or more accurately, where internalization is incentive-relevant), the case for internalization depends, in part, on the degree to which all other markets are complete. Unless spillovers are internalized throughout society – which is impossible – the case for internalization in any particular context must somehow account for cascading effects in other dependent markets and many incomplete and missing markets (including nonmarket systems). Such accounting is quite difficult and requires considerably more attention to context.

Especially in the context of research, innovation and cultural expression, it may be preferable – from an economic, efficiency-driven perspective as well as a human flourishing, capabilities-driven perspective – to encourage cascading spillovers rather than damming the flows upstream and pricing/coordinating flows downstream through the market mechanism. To be clear, the point made here (and elsewhere) is not that nothing should be priced and everything should be openly accessible and usable.<sup>24</sup> There are benefits and costs to both management/allocation regimes, and the benefits and costs vary for different resources along various dimensions. Moreover, legal systems can and often do mix the two regimes allowing some sets of uses of a resource to be allocated by the market and designating other sets of uses to be open.

In fact, intellectual property systems do exactly this to enable some internalization and to promote some externalities. Determining how to serve and balance these two functions depends on, inter alia, the *types of intellectual resources* (including supply characteristics such

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<sup>24</sup>Frischmann and Lemley (2007) explain the need for mixed regimes.

as production costs), *types of resource uses* (including consumption and productive activities that use the resource), and the nature of the *relevant communities* (including producers, users, and third party beneficiaries).

Understanding the role of law in regulating and promoting different externality-producing activities requires the study of interdependencies among people, resources, and actions within and across complex nested systems, including cultural, economic, and political systems. It also requires the comparative analysis of legal institutions created by people to regulate their actions with respect to each other and the resources that comprise their environment. This is a complex task.<sup>25</sup>

To date, I have attempted to identify conditions where persistent flaws in demand manifestation associated with user-generated spillovers provide justifications for sustaining commons in (or nondiscriminatory access to) nonrivalrously consumed capital resources (“nonrival capital”). What emerges from my prior work is admittedly inconclusive, nuanced, and both context- and resource-specific in terms of its prescriptions. Even with respect to the subset of nonrival capital for which commons management seems most appealing – *infrastructural capital*, my prescriptions become tangled up in the contextual details, such as:

- the type of infrastructural resource,
- the degree to which it is purely nonrival (ideas) or partially nonrival (congestible),
- the types of user activities the resource potentially supports,
- the types of outputs those activities potentially generate, and
- the types and scope of externalities generated.

Getting tangled in these nuances is preferable, in my view, to ignoring them or adopting simplifying assumptions, and it is inevitable given the cross-disciplinary reach of the analysis; the details vary considerably across resource types (communications facilities, environmental resources, ideas, and so on). There are certainly disadvantages to the analytical move I’ve

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<sup>25</sup>Mark McKenna and I are working on it; see Frischmann and McKenna (2014). We’ll need help.

made in prior work. The internal critique pushes toward a more complex, contextual, and modest approach to theoretical and empirical work. This can be disheartening to those looking for simple narratives, grand theories, and ready-made institutional design solutions.<sup>26</sup>

Another significant critique of the spillovers *theory* is that it is not a *theory* at all! The observations and arguments underlying the spillovers critique do not quite add up (yet) to a comprehensive theory that is capable of providing adequate predictions or prescriptions. Rather, it highlights measurement problems endemic to utilitarian economic theories and conventional approaches to cost-benefit analysis, perhaps casting doubt on their status as theories as well, but it does not provide a workable alternative.

Finally, for many IP scholars, there is another significant critique of the spillovers theory. It is an internal critique and thus retains the utilitarian objective of maximizing utility. The spillover critique highlights the descriptive and analytical flaws in the utilitarian economic theories of IP but doesn't question the normative flaws.

**2.3. The Capabilities Approach<sup>27</sup>.** Frustrated with flaws in utilitarian economics and widespread reliance on the approach despite such flaws, Amartya Sen, a Nobel prize winning economist, developed an alternative approach to evaluating social arrangements. His analytical framework and approach, generally referred to as the Capabilities Approach, has gained significant momentum and developed into a well-established research field. While it began in the field of development economics and has gained substantial traction there, it has branched into many other areas and has increasingly been applied in legal scholarship.

**2.3.1. Brief Overview.** Welfare economics<sup>28</sup> and the capabilities approach, as conventionally understood, are two consequentialist theories that differ fundamentally and irreconcilably in their conception of the Ends which social arrangements seek to achieve. Utilitarian welfare

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<sup>26</sup>C.f. Cohen (2012) (similar critique).

<sup>27</sup>This sub-section briefly introduces Amartya Sen's Capabilities Approach. I discuss extensions and application by others such as Martha Nussbaum and Greg Alexander below.

<sup>28</sup>Some reviewers have questioned this label, suggesting, for example, that a better label would be *welfarism*.

economics focuses on maximizing the aggregate welfare of society, where welfare is measured by utility, happiness, pleasure, preference satisfaction, or some comparable measure.<sup>29</sup> Sen developed the Capabilities Approach precisely to escape welfare maximization as the End. The Capabilities Approach thus rejects exclusive reliance on conventional economic measures of wellbeing (utility, happiness, wealth) and develops an alternative (capabilities). Capabilities are opportunities or freedoms to realize actual, “real-life” achievements. Sen and many others employing the Capabilities Approach write about how society is, or would be, better off “investing” in the capabilities of individuals to be and do what they have reason to value. Sen deliberately emphasizes the importance of the *real* opportunities that people have in life.

This highlights the root tension between the two consequentialist theories, which can be understood simply as the “who says?” question: Who says what constitutes a “good life” or what Ends society should seek to achieve collectively? At a general level, welfare economics defers to individuals’ subjective beliefs and preferences. Maximizing social welfare entails maximizing aggregated subjectively determined welfare. On the other hand, the Capabilities Approach refuses to defer to individuals’ subjective beliefs and preferences because those beliefs and preferences are *contingent on context and malleable*. An incredibly poor person with very little opportunity in life might be subjectively happy because she has adapted to her conditions in life, but that cannot mean that society should not be committed to reducing poverty or investing in building the capabilities of her daughters and sons or of future generations of similarly situated people. The Capabilities Approach is unabashedly normative. Optimality is not dependent exclusively on individuals’ subjective happiness or preference satisfaction. While happiness and preference satisfaction matter and play a significant role in the evaluation of well-being within society, the Capabilities Approach envisions a more complex, multi-dimensional model of individual and social well-being, and it envisions grounding the analysis and evaluation of social arrangements in real contexts. In sharp contrast with the

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<sup>29</sup>See, e.g., Hausman and McPherson (2009).

uniform approach in utilitarian economics, Sen's approach is decidedly open and pluralistic, admitting for variance in how different communities and cultures may value and prioritize different capabilities. Yet the Capabilities Approach is objective in the sense that it is committed to capabilities that support human flourishing.

The Capabilities Approach has been used effectively in a variety of disciplines to develop moral prescriptions and tools for evaluation. In the past two decades, it has emerged as the dominant approach to human development policy and led to the creation of the United Nation's Human Development Index. The HDI provides a useful measurement tool that captures various aspects of human development and capabilities related to education, health and income. The HDI is used in the Human Development Reports produced by the United Nations Development Program and provides an alternative measure to GDP and other output-based metrics. The Capabilities Approach also has inspired other capabilities-based indices, such as the Gender Empowerment Index and the Human Poverty Index. An incredibly rich, interdisciplinary literature has developed involving economics, philosophy, political science, health policy and other social sciences.

*2.3.2. Limitations.* Despite such advances, Sen and many others have acknowledged that the Capabilities Approach leaves many details to be worked out (as is occurring within the literature). If we assume that developing capabilities within society is a normatively attractive objective, even if we do not assume it is our sole objective, then we still need to consider (i) which capabilities to support and whether we need a mechanism for prioritizing or weighting different capabilities, (ii) the available means for pursuing the objective and (iii) various political, economic, and other obstacles to implementation. Each of these subsidiary considerations involves a thicket of issues discussed and debated in the literature. I do not aim to enter into the thicket at this stage, although we will touch on some of these issues below.



The Capabilities Approach suffers from a few additional limitations that appear to get less attention in the literature. I tentatively note three:<sup>30</sup> its individualist orientation, its inattention to resource characteristics, and its macro viewpoint. These limitations deserve mention because of their relevance to intellectual property.

Although open, pluralistic and multi-dimensional and thus potentially inclusive of happiness and other utilitarian considerations, the Capabilities Approach's deliberate focus on capabilities leads, in one sense, to a narrow conception of social wellbeing. It is liberal and individualist. Capabilities are socially valuable or meaningful because of what they mean for individuals. Put another way, the Capabilities Approach is focused on what we might refer to as "first party effects," meaning the wellbeing of individuals associated with having opportunities to achieve certain outcomes. Capabilities are valuable and worth supporting precisely because of the (real or option) value to the autonomous individual.<sup>31</sup> Yet, as discussed in Section 4, some capabilities may be socially valuable and morally deserving of support *precisely* because of their beneficial third party effects.

The Capabilities Approach is not particularly concerned with resources and in particular, resource characteristics. Resources are fungible means to ends, things to be allocated, manipulated, and socially constructed. Of course, individuals have different capacities to transform resources into functionalities, and that is absolutely something the Capabilities Approach pays attention to, but my point is that means and ends often are intertwined in practical reality and resources are not fungible means. Resources vary considerably in (i) their intrinsic characteristics; (ii) their potential for use, allocation, manipulation, and social construction; and (iii) their constitutive features in interdependent social systems. By leaving consideration of these resource characteristics aside, the Capabilities Approach doesn't engage fully

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<sup>30</sup>I may be overstating the degree to which these limitations get less attention. The Capabilities Approach literature is vast and quite complex, and I might have missed a strand in the literature. If I am incorrect or have made an overstatement, it should not undermine the basic point, which is that these three issues are relevant to intellectual property.

<sup>31</sup>See, e.g., Nussbaum (2011).

with the interdependent relationships between the physical, cultural, and social systems that constitute our environment. Yet these interdependent systems often shape the capabilities we have and thus, in a sense, the latent potential for capabilities.

The two limitations just noted relate to and may derive from the final limitation I will note, which is the macro viewpoint of the Capabilities Approach. Sen, Nussbaum, and others working within the Capabilities Approach tradition often, though not always, operate at a high level and deal with moral conceptions manifest or reflected in international human rights, constitutional rights, and broad notions of social justice. Shifting to a meso- or micro- level of institutional analysis may lead one to pay more attention to both third party effects and resources, at least where the institutions subject to evaluation concern the use, allocation, manipulation, and social construction of resources with the potential to affect third parties.

**2.4. Integrating the Spillovers and Capabilities Approaches?** Suppose we were to combine the approaches. We might retain the normative outlook of the Capabilities Approach and supplement the analytic approach with some of the insights from the spillovers concept and the underlying resource economics that informs the spillovers concept. Both the Capabilities Approach and the spillovers concept focus attention on activities – what people do or can do – and what participation in those activities may produce, both for the individual participants and for others.

Bridging the gap between the Capabilities Approach and spillovers requires more explicit consideration of the means used to enhance capabilities and encourage spillovers (positive third party effects). While investments in capabilities often take the form of direct public funding or provision of basic public goods or services, such as education, investments in capabilities are also often manifest in law. The next section briefly explores law as the means to enhancing capabilities. Then Section 4 will consider more directly how intellectual property law serves as a means for enhancing (some) capabilities.

### 3. LEGAL MEANS FOR SUPPORTING OR ENHANCING CAPABILITIES

The relationship between the Capabilities Approach and law is complex and dynamic. In a sense, the Capabilities Approach is a tool for evaluating laws and other related social arrangements. And in this sense, it is just like utilitarianism or conventional welfare economics. Difficulties arise in moving from the abstract commitment to the relevant end (capabilities, utility) to actual legal prescriptions – *how should we design a copyright system to achieve the relevant end? If the existing legal system is imperfect, what changes would constitute improvements?* Moving from specification of Ends (or evaluation of an existing system in light of specified Ends) to implementation of means through the design (or redesign) of legal and other policy institutions requires complex and contextual, comparative institutional analysis.<sup>32</sup>

This Section considers different ways to conceptualize the role of law in pursuit of the Capabilities Approach objective. It begins with the idea of *moral floors*, understood as moral obligations on the State that may be rooted in human rights, constitutions, or some other legal institution. It next considers the idea of *social obligations* that may be rooted within property law and related institutions that directly build certain capacities via the rights and opportunities made possible by the legal system and the community. After discussing these two conceptualizations, this Section highlights what appears to be missing from both: consideration of how the resource allocation function of law depends upon *resources*. This latter function is especially important for nonrival resources that can be shared over some substantial range of demand; the reason why is that society may use the law to *leverage* nonrivalry as a means for achieving various social objectives. In fact, as we will see in Section 4, IP law leverages nonrivalry to support public capabilities.

**3.1. Moral floors (for the State).** The Capabilities Approach supports the idea of *moral floors*, understood as moral obligations on the State rooted in human rights, constitutions, or some other legal institution. Nussbaum (2007) aptly applies and refines the Capabilities

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<sup>32</sup>Frischmann and McKenna (2014).

Approach to establish a concrete moral floor for society, such that “any minimally just society will make available to all citizens a threshold level of ten central capabilities, as core political entitlements.” She articulates the following the list (Nussbaum, 2011):

- (1) **Life.** Being able to live to the end of a human life of normal length; not dying prematurely, or before one’s life is so reduced as to be not worth living.
- (2) **Bodily Health.** Being able to have good health, including reproductive health; to be adequately nourished; to have adequate shelter.
- (3) **Bodily Integrity.** Being able to move freely from place to place; to be secure against violent assault, including sexual assault and domestic violence; having opportunities for sexual satisfaction and for choice in matters of reproduction.
- (4) **Senses, Imagination, and Thought.** Being able to use the senses, to imagine, think, and reason – and to do these things in a “truly human” way, a way informed and cultivated by an adequate education, including, but by no means limited to, literacy and basic mathematical and scientific training. Being able to use imagination and thought in connection with experiencing and producing works and events of one’s own choice, religious, literary, musical, and so forth. Being able to use one’s mind in ways protected by guarantees of freedom of expression with respect to both political and artistic speech, and freedom of religious exercise. Being able to have pleasurable experiences and to avoid non-beneficial pain.
- (5) **Emotions.** Being able to have attachments to things and people outside ourselves; to love those who love and care for us, to grieve at their absence; in general, to love, to grieve, to experience longing, gratitude, and justified anger. Not having one’s emotional development blighted by fear and anxiety. (Supporting this capability means supporting forms of human association that can be shown to be crucial in their development.)

- (6) **Practical Reason.** Being able to form a conception of the good and to engage in critical reflection about the planning of one's life. (This entails protection for the liberty of conscience and religious observance.)
- (7) **Affiliation.**
- (a) Being able to live with and toward others, to recognize and show concern for other humans, to engage in various forms of social interaction; to be able to imagine the situation of another. (Protecting this capability means protecting institutions that constitute and nourish such forms of affiliation, and also protecting the freedom of assembly and political speech.)
  - (b) Having the social bases of self-respect and non-humiliation; being able to be treated as a dignified being whose worth is equal to that of others. This entails provisions of non-discrimination on the basis of race, sex, sexual orientation, ethnicity, caste, religion, national origin and species.
- (8) **Other Species.** Being able to live with concern for and in relation to animals, plants, and the world of nature.
- (9) **Play.** Being able to laugh, to play, to enjoy recreational activities.
- (10) **Control over one's Environment.**
- (a) Political. Being able to participate effectively in political choices that govern one's life; having the right of political participation, protections of free speech and association.
  - (b) Material. Being able to hold property (both land and movable goods), and having property rights on an equal basis with others; having the right to seek employment on an equal basis with others; having the freedom from unwarranted search and seizure. In work, being able to work as a human, exercising practical reason and entering into meaningful relationships of mutual recognition with other workers.

These basic capabilities comprise, in Nussbaum's (2007) view, "political goals, quite ambitious ones, such as having adequate health care, having adequate free public education, having sufficient protection for one's bodily integrity; and it is a good bet that most of the world's people do not have the whole list, if, indeed, they have any of them."

Like Sen and other Capabilities Approach theorists, Nussbaum's analysis is Aristotelian and emphasizes the fundamental moral objectives of basic human dignity and human flourishing. Her approach is capabilities-driven; that is, the nature of certain capabilities – their essentialness to human dignity and human flourishing – elevates their existence and sustenance to utmost moral priority. For Nussbaum and many others, these fundamental moral entitlements are a minimum threshold, an end to be aimed for even if rarely achieved completely.<sup>33</sup> This establishes a moral floor.

**3.2. Social obligations (for private actors).** In a series of papers focused on property law and theory, Greg Alexander has built from Sen's Capabilities Approach to develop what he refers to as the human flourishing theory of property.<sup>34</sup> Alexander's theory can be summarized as follows:

- (1) The "moral foundation for property, both as a concept and as an institution, is human flourishing." In other words, property law is a *means* for enabling the *end* of human flourishing.
- (2) Following Aristotle, human flourishing "means that a person has the opportunity to live a life as fulfilling as possible for him or her."
- (3) While there are many different views on what this entails, Alexander's conception requires both:
  - (a) *moral pluralism*, in the sense that "it rejects the notion that there exists a single irreducible fundamental moral value to which all other moral values may be

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<sup>33</sup>Nussbaum (2011), at 35-36.

<sup>34</sup>See Alexander (2013). The quotations in this section are all from this article.

reduced” and thus human flourishing includes (but is not limited to) “individual autonomy, personal security/privacy, personhood, self-determination, community, and equality;” and

- (b) *objectivity*, in the sense that flourishing is objectively rather than subjectively determined.
- (4) The Capabilities Approach is an analytical framework for measuring and evaluating human flourishing.
- (5) Recognizing that one might, as others do, “debate endlessly what capabilities are essential to be in a position to be able to live a fulfilling life,” Alexander identifies four uncontroversially essential capabilities: “*life*, understood to include certain subsidiary values such health; *freedom*, understood as including the freedom to make deliberate choices among alternative life horizons; *practical reasoning*; and *sociability*.”
- (6) “No one can develop these capabilities by himself.” Rather, developing these capabilities depends on other people, communities, and (environmental and infrastructural) resources.<sup>35</sup>
- (7) “Inherent dependence on others and . . . various communities” creates obligations to participate in and support (the infrastructural) “social networks and structures.”

The theory is capabilities-driven, in the sense that Alexander deliberately chooses a reduced set of basic capabilities deemed uncontroversial and suggests that rational beings recognize their own interest in obtaining and sustaining these basic capabilities and also, because of their inherently social and interdependent relationships with others in their community, recognize a symmetrical interest in supporting the basic capabilities of others. The reciprocal relationships and set of interests give rise to Alexander’s *social obligation norm*,<sup>36</sup> which suggests that those

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<sup>35</sup>Alexander does not emphasize infrastructural resources. I have added them because they are implicit in the arguments he makes and are critical. Oddly enough, in my book about infrastructural resources, I do not emphasize capabilities, though they are implicit and critical to the arguments I make. See *Infrastructure*.

<sup>36</sup>Alexander (2009).

necessarily interdependent community members owe reciprocal moral obligations to support each other's capabilities.

Note that Alexander's theory begins to relax the individualist inclinations of the Capabilities Approach and admit community values into the analysis. Moreover, in Alexander's work, ends matter, but so do the means. Thus, for example, when Alexander considers how far the social obligation would go, he confronts the difficult question of how far *the state* may go in implementing or enforcing the obligation. In other words, what demands can the government make on its citizens? There is plenty of room for debate on this issue. Alexander makes two suggestions relevant to property law:

- (1) "If we accept the existence of an obligation to foster the capabilities necessary for human flourishing, and if we understand that obligation as extending to an obligation to share property, at least in surplus resources, in order to enhance the abilities of others to flourish, then it follows that, in the predictable absence of adequate voluntary transfers, the state should be empowered and may even be obligated to step in to compel the wealthy to share their surplus with the poor so that the latter can develop the necessary capabilities."
- (2) Property ownership itself entails social obligations. That is, and I must admit that this is only implicit in Alexander's work, the obligation to support others' capabilities may be rooted in one's reliance on property law to support one's own capabilities. Sharing obligations, or even commons, are woven into the fabric of property law as institutions that serve this social purpose.<sup>37</sup>

**3.3. The resource allocation function of law – rights and freedoms.** The moral floor and social obligation approaches are important but incomplete. Before explaining why, let me just say that this is not surprising, nor really a challenge to either. Both contribute

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<sup>37</sup>See also Rose (1986, 2003).



tremendously to the working out of broader theory of how social arrangements may construct just societies. Neither claims to be complete.

The two approaches are incomplete for the same reasons as the Capabilities Approach generally (noted above in the section on Limitations of the Capabilities Approach). Both the moral floor approach and the social obligations approach pay insufficient attention to the resource characteristics that shape both resource allocation and third party effects. This is less obvious for the moral floors approach because it is focused on prescribing ends and not on means. The social obligation theory is rooted in property law, which fundamentally concerns itself with both resource allocation and third party effects, and it thus is quite focused on means. The considerations that follow build quite naturally on the social obligation approach.

Alexander emphasizes how property ownership is inherently social in the sense that private ownership entails obligations to the community to share resources in particular ways (e.g., to permit public access to resources) and under particular conditions (e.g., when there is a surplus to share and the resource is essential to human flourishing). Framed in terms of ownership and obligation, however, the theory seems to set certain default presumptions that are not warranted in the context of intellectual property. For many intellectual resources where public access is legally constructed as a feature of the intellectual property regime, public access is not dependent upon any owner's legal obligation. For example, copyright law ensures public access to the ideas in books without any corresponding legal obligation on the part of authors with respect to those ideas. The resources (ideas) are simply unowned; the public is free to use the ideas at will. With respect to an incredible array of resources, copyright and patent laws allocate both rights and freedoms. Intellectual property laws have a semi-commons structure that repeats itself in a fractal manner as one shifts from macro to meso to micro levels of analysis.<sup>38</sup> Throughout, the laws allocate rights and freedoms with regard to resources.

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<sup>38</sup>Infrastructure, ch. 12.

The reason IP can do this (and be structured in this fashion) is that the underlying resources are pure public goods, meaning that they are nonrivalrously consumed and thus, the limiting condition of sharable surplus, which Alexander relies on, doesn't apply. Rather, as I have explained at length elsewhere, the nonrivalrous nature of intellectual goods gives rise to incredible potential for sharing and productive use by the public. Of course, there are various tradeoffs that make institutional design and implementation of normative ideals quite complex and contentious. Beyond nonrivalry, there are other various complications, such as the "standing on the shoulders of giants" effect, the absence of clear resource boundaries, and the incredible complexity of the resource systems, which are dynamic and often nonlinear.<sup>39</sup>

The design of intellectual property law is shaped by the resource characteristics and the complexity of the resource systems. It is one thing to say (accurately) that society leverages nonrivalry through a variety of legal arrangements that enable sharing and productive use of nonrival resources. *But to what end? How can we evaluate these legal arrangements? How can we improve them?* Answering these questions requires, among other things, a normative baseline. Yet the literature is surprisingly unhelpful about such a baseline. What we have are vague articulations and interpretations of Progress in Science and the Useful Arts coupled with an incredible (almost disabling) fear of the who says question, which ultimately leads to deference to individual preferences manifest in markets ("let the people say what they want! Let the market decide!"), and consequently, overwhelming yet unfounded agreement that IP is and should be utilitarian.<sup>40</sup>

#### 4. TOWARD A NEW IP CONSEQUENTIALISM: A HUMAN FLOURISHING THEORY FOR IP

One step toward a new consequentialist theory of intellectual property would be to follow Sen, Alexander, Cohen, Sunder, and others down the path set by Aristotle so long ago:<sup>41</sup>

<sup>39</sup>Infrastructure, ch. 12 (discussing these characteristics at length and collecting sources).

<sup>40</sup>Frischmann and McKenna (2014, 2011).

<sup>41</sup>Some leading IP scholars have taken important steps down this path as well. See Cohen (2012) and Sunder (2012). See also Wong and Graham (2010).

*Reject utilitarianism (welfarism) and commit to human flourishing.* In fact, for our present purposes, let us more or less adopt Alexander’s human flourishing theory of property and the series of arguments already set forth above and reframed slightly below. Developing a human flourishing theory of *intellectual* property certainly could build from the scaffolding Alexander constructed, which in turn built on Sen and others going all the way back to Aristotle.

- (1) The moral foundation for intellectual property is human flourishing. This means that intellectual property law is a *means* for enabling the *end* of human flourishing.
- (2) Human flourishing “means that a person has the opportunity to live a life as fulfilling as possible for him or her.”
- (3) Our conception of human flourishing requires both moral pluralism and objectivity, as defined above.
- (4) The Capabilities Approach provides an analytical framework for measuring and evaluating human flourishing.
  - (a) We may supplement the framework, or at least, make sure that when using it we pay attention to resource and resource system characteristics and take into account both first and third party effects.
- (5) Four uncontroversially essential capabilities include: “*life*, understood to include certain subsidiary values such health; *freedom*, understood as including the freedom to make deliberate choices among alternative life horizons; *practical reasoning*; and *sociality*.”
  - (a) We will need to move beyond these basic capabilities.
- (6) Developing these and various other capabilities depends on institutions governing relationships among other people, communities, and environmental and infrastructural resources.<sup>42</sup>

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<sup>42</sup>I have left out the seventh step, which connected inherent interdependence with social obligations. While it might be important to include in the future as we continue to develop a human flourishing theory of intellectual property, I do not think it is essential at this stage for reasons identified in the text.

Before proceeding, one might wonder whether there is much work to be done; perhaps Alexander's human flourishing theory of property includes a theory of intellectual property? I don't think so, mainly for the reasons highlighted in the previous section. First, Alexander's theory is not well attuned to the resource and resource system characteristics that shape the social opportunities for enabling public capabilities through intellectual property law. Second, the four uncontroversially essential capabilities identified by Alexander are too coarse to be of much use in evaluating intellectual property law or engaging in comparative institutional analysis. They provide a good start, but it probably is necessary to engage in the definitional debate that Alexander seeks to avoid. As Cohen (2012) and Sunder (2012) have explored, there are other capabilities more directly related to public engagement with intellectual resources and the cultural environment more generally.<sup>43</sup> Third, while Alexander moves beyond the individualist orientation of the Capabilities Approach by incorporating social relationships, he does not fully incorporate third party effects into his analysis. Production and use of intellectual resources as well as participation in activities dependent on access to such resources (e.g., political speech; criticism) often generate third party effects and not necessarily in a manner than implicates the reciprocity Alexander relies on when developing his social obligation norm. These reasons all relate to the idea that we cannot fully separate our analysis of means from our analysis of ends; both are dependent on an analysis of resources, resource systems and their relationships to (different conceptions of) human flourishing.

*What we need is a more functional approach to evaluate the interdependent relationships between people, resources and actions within complex nested (economic, cultural, political, and social) systems and the role of law and other social institutions in mediating those relationships.*

Other scholars, such as Julie Cohen and Madhavi Sunder, have developed human flourishing theories of intellectual property that recognize the special characteristics of intellectual

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<sup>43</sup>See Cohen (2012), pp. 224-227, 230, 241-42, and Sunder (2012) pp. 7-8, 64-69, 74-76 for excellent discussions of specific capabilities.

resources and resource systems and the corresponding complex relationships and interdependencies. Each has taken important steps down the path I am also following in this essay. Although for the sake of brevity I will not trace their contributions here, I will note that I believe they are complementary in many respects. Both reject welfare economics and turn to human flourishing. Normatively, we're all on the same page. Analytically, however, each takes a very different approach than mine, as neither considers the critical role of spillovers as social investments in capabilities.

Without intending to, Cohen may come close. Cohen (2012, p. 224) emphasizes the structure of the networked information environment and the critical need to “preserve room for play in the use of cultural resources, in the performance of identity, and in the ongoing adaptation of places and artifacts to everyday needs.” (Her theory is broader than intellectual property law.) She derives three principles, *access to knowledge* (and related resources, tools, networks), *operational transparency*, and *semantic discontinuity*, which “refers to gaps and inconsistencies within systems of meaning and to a resulting interstitial complexity that leaves room for the play of everyday practice.” (Cohen, 2012, p. 224) I endorse each of these principles and believe each maps reasonably well to the arguments I make elsewhere, and to a more limited extent below, about the functional roles of the semi-commons structure of intellectual property regimes and of spillovers, which one might describe as that which often flows through the gaps and interstices Cohen identifies.<sup>44</sup>

Returning to where we began, suppose we retain the normative outlook of the Capabilities Approach (human flourishing) and supplement the analytic approach with some of the insights from the spillovers concept and the underlying resource economics that informs the spillovers concept. Where would that get us? Both the Capabilities Approach and the spillovers concept focus attention on activities – *what people do or can do* – and what participation in those activities may produce, both for the individual participants and for others. Thus, bridging

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<sup>44</sup>This is a theme I would like to explore in more detail in future work.

the gap between the Capabilities Approach and spillovers requires more explicit consideration of the functional relationships between capabilities, activities, and spillovers; and the functional relationships between intellectual property law as an institutional means for enhancing capabilities and encouraging spillovers (positive third party effects).

Building this bridge will not be enough. One critically important capability enabled by intellectual property laws is appropriation of benefits through participation in the stream of markets for intellectual goods (recall the supply chain noted earlier). We cannot ignore the positive role of private property and corresponding first party effects. To put it another way, the private rights features of the intellectual property semi-commons support important capabilities.<sup>45</sup> In developing a new IP consequentialism, we cannot ignore this dimension. But, to be frank, this dimension is reasonably well explained in terms of conventional property theory without serious attention to resource characteristics and the social opportunity to leverage nonrivalry.<sup>46</sup> Accordingly, for purposes of this essay, we will focus on the functional relationships noted above. Doing so provides a different way to understand the structure of intellectual property and appreciate the critical role of *spillovers as social investments in the capabilities of others*.

Exploring the relationships between capabilities, activities, and spillovers in general would be a monumental task. Here I only sketch the basics.

Capabilities are opportunities or freedoms to realize actual, “real-life” achievements, or what Sen refers to as “functionalities.” Discussion of what capabilities a person enjoys in life depends substantially on her context and the constraints and affordances she faces when making plans and choosing what to do, or in other words, in choosing what activities to

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<sup>45</sup>See, e.g., Schultz and van Gelder (2008).

<sup>46</sup>I say *reasonably well* because one still needs to pay close attention to the boundary setting function of intellectual property as well as the complications in enforcing exclusionary rights that arise from the intangible nature of the underlying resources. Designing intellectual property to effectively enable people to participate in markets and appropriate returns from their investments in intellectual production and distribution is not easy and is complicated by the resource characteristics. Nonetheless, the relationship between the private rights, the capability, and the resource characteristics is somewhat easier to describe, as others have done.

engage in. In a sense, describing capabilities entails describing the environmental context<sup>47</sup> itself and the individual's corresponding opportunities in life.

Exercising capabilities entails making choices about what activities to engage in to achieve *something*, which on one hand, might be the *pleasure* of being engaged in the activity (or some other state of being very tightly coupled to being engaged in the activity), and on the other hand, might be *something produced*, say an output or an alteration in the environment or context that constitutes an adjustment in the ongoing state of affairs. Roughly speaking, we might differentiate the activities based on whether the activities are primarily consumptive or productive, and we might further break down consumption and production, for example, by differentiating activities that produce private or public goods or by differentiating activities that produce only first party effects and those that produce first and third party effects (spillovers).<sup>48</sup>

Some capabilities have spillover potential and may be worth enhancing or supporting because of their salutary first party and third party effects. Not all capabilities have the same spillover potential, and in fact, some may have none. Note that spillover potential of a capability will depend on, inter alia, the nature of the community, the degree of interdependence among community members, and the nature of the activity-system.

As discussed in the previous Section, law generally plays different functional roles in supporting public capabilities: setting moral floors, creating social obligations, and allocating (rights and freedoms with regard to) resources. Intellectual property laws allocate rights and freedoms with regard to various intellectual resources. The semi-commons structure of intellectual property laws is justified by and functionally related to both the normative end of human flourishing *and* the special resource characteristics of intellectual resources. Specifically, the semi-commons structure leverages nonrivalry to sustain critically important

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<sup>47</sup>I mean *environmental context* broadly understood to include natural and socially constructed environments.

<sup>48</sup>This is obviously a complicated task. I tried in the context of speech-related activities. See Frischmann (2008). See also Infrastructure.

public capabilities associated with intellectual, cultural, economic, political, and social development,<sup>49</sup> and as a consequence, legally-facilitated spillovers function as social investments in the capabilities of others.

Focusing on the capabilities supported through the commons features, the argument consists of the following five steps:

- (1) Some social investments in capabilities are (should be) made through legal structures that allocate freedoms to access and use resources that are necessary to participation in certain types of activities.
- (2) These “investments” may constitute spillovers in themselves because the legally allocated freedoms constitute benefits (either real value or option value) for resource users that are external to resource production and exchange.
- (3) The participatory capabilities may include basic capabilities essential to survival and a good life but perhaps also more advanced capabilities essential to a productive and/or engaged life.
- (4) When individuals choose to exercise their participatory capabilities, participation may yield spillovers vis-à-vis the impacts of such participation on interdependent social activities or systems.
- (5) The enabled capabilities are thus (i) privately valuable in the sense that people have reason to value participation, even if they do not necessarily or always exercise the capability to participate, and (ii) socially valuable in the sense that when exercised, participation generates societal benefits.

I should note that the first step in the argument involves two important limits – the resources in question are *sharable* and *essential* in certain ways that others are not. These limits carve out an important space within complex nested systems, including cultural, economic, and political systems, to study interdependencies among people, resources, and actions.

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<sup>49</sup>See Cohen (2012) pp. 224-227, 230, 241-42 and Sunder (2012) pp. 7-8, 64-69, 74-76 for excellent discussions of specific capabilities.



For example, as fair use illustrates rather well,<sup>50</sup> some IP-supported or facilitated spillovers can be seen as direct social investments in the capabilities of others.<sup>51</sup> Fair use allows for some unlicensed use and thus enhances the capabilities of users to participate in activities like criticism, commentary, news reporting, teaching, scholarship, and research. In essence, fair use reflects a social investment in public capabilities that is accomplished *by* spillovers – third party (user) benefits external from the initial production decision or subsequent transactions. Whether such capabilities are basic in the sense that they are essential to one’s conception of living a good life, which might be reasonably framed in terms of participating in one’s culture, or whether such capabilities are more advanced (not basic) remains an issue to consider. Arguably, the social investment made via fair use is not only accomplished *by* spillovers but also to some degree, *for* spillovers – social benefits from being part of a more capable community as well as social benefits associated with the user-generated public good outputs

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<sup>50</sup>I previously explored this point, though only briefly:

Consider the example of fair use. . . , an example where eliminating or at least significantly narrowing the doctrine could reasonably be justified from a neoclassical economic perspective focused on maximizing social welfare. [The case for eliminating or narrowing the doctrine would focus on transaction costs – so long as transaction costs are manageable and licensing is feasible, then there is little need for fair use.] As the Supreme Court made clear in *Eldred*, Congress could not, without being subject to more exacting First Amendment scrutiny by the Court, eliminate fair use. [537 US 186, 221 (2003).]

What theoretical perspective explains this? It is not, in my view, based on a concern over the costs of government action or checking government power; though closer, it is not based on concerns about the integrity of the marketplace of ideas or individual autonomy (eliminating fair use of copyright protected expression doesn’t preclude use of ideas, one might say). Rather, it appears to be primarily concerned with sustaining spillovers, spillover-producing speech, or, more generally, a spillover-rich cultural environment. To be clear, my claim is not that spillovers are an end in themselves. The concepts of spillovers and spillover-rich environments are meaningful only when understood to refer to social relationships in context. The concern reflected in *Eldred*, though certainly not articulated by the Court, may be stated more accurately (but verbosely) as a concern about sustaining public participation in speech-dependent activities that produce positive third party effects. The preamble of Section 107, the fair use provision of the Copyright Act, lists a few illustrative examples of such activities: criticism, commentary, news reporting, teaching, scholarship, and research. [17 USC § 107 (2000).] These examples may be best understood to exemplify activities where participants are “situated” in particular relationships and contexts that have social meaning and effects beyond the immediate participants (meaning and effects often underappreciated by those participants).

One standard reply to the argument I have made . . . would be to say “of course, that’s because the First Amendment is not about economics at all”; we accept efficiency losses because of other non-economic values. This reply makes some sense, but seems incomplete. It may be the case that the underlying economic theory itself is incomplete, and that an economic approach that recognized the value of spillovers and institutional structures that support participation in their production might tell us a different story and lead us to focus on different questions. (Frischmann, 2008).

<sup>51</sup>The public domain status of ideas is another example. See Infrastructure, ch. 12 (exploring ideas as intellectual infrastructure managed as a commons).

(e.g., more ideas and expression). Finally, it is worth noting that such investments are possible because of the nonrival nature of the resources being shared.

## 5. CONCLUSION

This essay takes a few steps toward a human flourishing theory of intellectual property. There is much work to be done. Recognizing the intellectual property laws govern nonrival resources requires careful consideration of how society may use the law to leverage nonrivalry as a means for achieving various social objectives, including supporting various capabilities. The moral floors and social obligations theories help frame the conversation about which capabilities matter. But the ends (capabilities) best served (supported) by intellectual property laws are to a large extent limited by or dependent on the interdependent relationships between people, resources and actions within complex nested (economic, cultural, political, and social) systems. The social opportunities to leverage nonrivalry through law and other social institutions are constrained by these relationships, and we need to understand them better as we evaluate and possibly reform intellectual property laws. Integrating the spillovers and capabilities approaches reveals an incredibly useful mechanism by which society invests in public capabilities. The commons components of intellectual property leverage nonrivalry to sustain critically important public capabilities associated with intellectual, cultural, economic, political, and social development; legally-facilitated spillovers function as social investments in the capabilities of others.

This essay does not resolve the underlying normative deficit problem in intellectual property. Many commentators, courts and casebooks will continue to assume (mistakenly) that intellectual property is fundamentally and unalterably utilitarian.<sup>52</sup> As I have explained elsewhere, it is not. But even if we adopt a human flourishing as our end and assume that developing capabilities within society is our normative objective, we still need to consider

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<sup>52</sup>For further discussion, see Frischmann and McKenna (2014).

which capabilities to support and what mechanism to use for prioritizing or weighting different capabilities. A reviewer asked if I meant to imply that combining the spillovers and capabilities approaches would resolve the normative problem such that “maximizing each person’s capabilities (per the Capabilities Approach) will maximize (or optimize) progress overall (per spillover theory).”<sup>53</sup> I did not mean to imply this, but the reviewer’s question raises an important issue.

Capabilities are tricky because maximization or optimization only make sense if you specify and prioritize or weight the various capabilities. In this essay, I do not engage that normative question and leave it open to political or other processes for making the normative commitments.<sup>54</sup> I may have my list and set of priorities, and you may have yours, but we might see areas of agreement emerge when we move off the moral floor debate and engage with the functional resource allocation concerns explored in this essay. Even if we do not find areas of agreement, we still might be able to leverage nonrivalry through the law in ways that leave it open for individuals or groups to decide for themselves what capabilities matter and when and how to exercise them.

#### REFERENCES

- Alexander, Gregory S. (2009)**, “The Social-Obligation Norm in American Property Law”, *Cornell Law Review*, 94; 745-819.
- Alexander, Gregory S. (2013)**, “Ownership and Obligations: The Human Flourishing Theory of Property”, *Hong Kong Law Journal*, 43, Part 2; 451.
- Alkire, Sabina (2002)**, *Valuing Freedoms: Sen’s Capability Approach and Poverty Reduction*, Oxford: Oxford University Press.
- Arewa, Olufunmilayo (2007)**, “Freedom to Copy: Copyright, Creation and Context”, *University of California Davis Law Review*, 41(2); 477-558.
- Barron, Anne (2010)**, “Copyright Infringement, ‘Free-Riding’ and the Lifeworld”, in *Copyright and Piracy: An Interdisciplinary Critique*, Bently, Lionel, Jennifer Davis and Jane Ginsburg (eds.), Cambridge: Cambridge University Press.

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<sup>53</sup>Anonymous reviewer, email sent August, 26, 2014.

<sup>54</sup>One plausible approach to the normative question would be to prioritize those capabilities that tend to generate spillovers when exercised.

- Bracha, Oren and Talha Syed (2014)**, “Beyond Efficiency: Consequence-Sensitive Theories of Copyright”, *Berkeley Technology Law Journal*, 29; 229-315.
- Buchanan , James M. and William Craig Stubblebine (1962)**, “Externality”, *Economica*, 29(116); 371-84.
- Chon, Margaret (1993)**, “Postmodern ‘Progress’: Reconsidering the Copyright and Patent Power”, *DePaul Law Review*, 43; 97-146.
- Chon, Margaret (2006)**, “Intellectual Property and the Development Divide”, *Cardozo Law Review*, 27; 2821-912.
- Coase, Ronald H. (1960)**, “The Problem of Social Cost”, *The Journal of Law and Economics*, 3; 1-44.
- Cohen, Julie E. (1998)**, “Lochner in Cyberspace: The New Economic Orthodoxy of ‘Rights Management’”, *Michigan Law Review*, 97; 462-563.
- Cohen, Julie E. (2000)**, “Copyright and the Perfect Curve”, *Vanderbilt Law Review*, 53; 1799-819.
- Cohen, Julie E. (2007)**, “Creativity and Culture in Copyright Theory”, *University of California Davis Law Review*, 40; 1151-205.
- Cohen, Julie E. (2012)**, *Configuring the Networked Self: Law, Code, and the Play of Everyday Practice*, New Haven: Yale University Press.
- Cornes, Richard and Todd Sandler (1999)**, *The Theory of Externalities, Public Goods, and Club Goods*, Cambridge: Cambridge University Press.
- Demsetz, Harold A. (1967)**, “Toward a Theory of Property Rights”, *American Economic Review*, 57(2); 347-59.
- Demsetz, Harold A. (1969)**, “Information and Efficiency: Another Viewpoint”, *Journal of Law and Economics*, 12; 1-22.
- Demsetz, Harold A. (1970)**, “The Private Production of Public Goods”, *Journal of Law and Economics*, 13; 293-306.
- Demsetz, Harold A. (1998)**, “Property Rights”, in *The New Palgrave Dictionary of Economics and the Law*, Newman, Peter (ed.), London UK: Palgrave Macmillan.
- Demsetz, Harold A. (2008)**, “Frischmann’s View of ‘Toward a Theory of Property Rights’”, *Review of Law and Economics*, 4(1); 127-32.
- Demsetz, Harold A. (2011)**, *From Economic Man to Economic System: Essays on Human Behavior and the Institutions of Capitalism*, Cambridge: Cambridge University Press.
- Frischmann, Brett (2007)**, “Evaluating the Demsetzian Trend in Copyright Law”, *Review of Law and Economics*, 3; 649-77.
- Frischmann, Brett (2008)**, “Speech, Spillovers, and the First Amendment”, *University of Chicago Legal Forum*, 2008; 301-33.
- Frischmann, Brett (2009)**, “Spillovers: Theory and Its Conceptual Boundaries”, *William & Mary Law Review*, 51; 801-24.
- Frischmann, Brett (2012)**, *Infrastructure: The Social Value of Shared Resources*, Oxford UK: Oxford University Press.

- Frischmann, Brett and Christiaan Hogendorn (2015)**, “Retrospectives: The Marginal Cost Controversy”, *Journal of Economic Perspectives*, 29; 193-205.
- Frischmann, Brett and Mark Lemley (2007)**, “Spillovers”, *Columbia Law Review*, 107; 257-301.
- Frischmann, Brett and Alain Marciano (2015)**, “Understanding The Problem of Social Cost”, *Journal of Institutional Economics*, 11(2); 329-52.
- Frischmann, Brett, Alain Marciano and Giovanni Ramello (2017)**, “Relevantly Irrelevant Externalities”, work in progress, on file with author.
- Frischmann, Brett and Mark McKenna (2011)**, “Intergenerational Progress”, *Wisconsin Law Review*, 2011; 123-39.
- Frischmann, Brett and Mark McKenna (2014)**, “Comparative Analysis of (Innovation) Failures and Institutions in Context”, working paper, on file with the author.
- Goldstein, Paul (1994)**, *Copyright’s Highway: From Gutenberg to the Celestial Jukebox*, Stanford CA: Stanford University Press.
- Hausman, Daniel M. and Michael S. McPherson (2009)**, “Preference Satisfaction and Welfare Economics”, *Economics and Philosophy*, 25(1); 1-25.
- Kieff, F. Scott (2001)**, “Property Rights and Property Rules for Commercializing Inventions”, *Minnesota Law Review*, 85; 697-754.
- Kitch, Edmund W. (1977)**, “The Nature and Function of the Patent System”, *Journal of Law and Economics*, 20; 265-90.
- Landes, William and Richard Posner (2003)**, *The Economic Structure of Intellectual Property Law*, Cambridge, MA: Harvard University Press.
- Lemley, Mark A. (1997)**, “The Economics of Improvement in Intellectual Property Law”, *Texas Law Review*, 75; 989.
- Lemley, Mark (2005)**, “Property, Intellectual Property, and Free Riding”, *Texas Law Review*, 83; 1031.
- Libecap, Gary D. (1994)**, *Contracting For Property Rights*, Cambridge, UK: Cambridge University Press.
- Loren, Lydia P. (1997)**, “Redefining the Market Failure Approach to Fair Use in an Era of Copyright Permission Systems”, *Journal of Intellectual Property Law*, 5; 1-58.
- Lunney, Jr., Glynn S. (2008)**, “Copyright’s Price Discrimination Panacea”, *Harvard Journal of Law & Technology*, 21; 387-456.
- Nussbaum, Martha C. (2007)**, “The Capabilities Approach and Ethical Cosmopolitanism: A Response to Noah Feldman”, *Yale Law Journal Pocket Part*, 117, Part 123. Available at <http://yalelawjournal.org/forum/the-capabilities-approach-and-ethical-cosmopolitanism-a-response-to-noah-feldman>.
- Nussbaum, Martha C. (2013)**, *Creating Capabilities: The Human Development Approach*, Cambridge, MA: The Belknap Press of Harvard University Press.
- Nussbaum, Martha C. and Amartya Sen (eds.) (1993)**, *The Quality of Life*, Oxford: Oxford University Press.
- Pigou, Arthur C. (1932)**, *The Economics of Welfare*, 4th ed., London: MacMillan.

- Rose, Carol (1986)**, “The Comedy of the Commons: Custom, Commerce, and Inherently Public Property”, *The University of Chicago Law Review*, 53(3), 711-81.
- Rose, Carol (2003)**, “Romans, Roads, and Romantic Creators: Traditions of Public Property in the Information Age”, *Law and Contemporary Problems*, 66; 89-110.
- Schultz, Mark and Alec van Gelder (2008)**, “Creative Development: Helping Poor Countries by Building Creative Industries”, *Kentucky Law Journal*, 97; 79-147.
- Sen, Amartya K. (1985)**, *Commodities and Capabilities*, Amsterdam: North-Holland.
- Sen, Amartya K. (1999)**, *Development As Freedom*, Oxford: Oxford University Press.
- Sen, Amartya K. (2005)**, “Human Rights and Capabilities”, *Journal of Human Development*, 6(2); 151-66.
- Sunder, M. (2012)**, *From Goods to a Good Life: Intellectual Property and Global Justice*, New Haven, CT: Yale University Press.
- Wong, Tzen and Graham Dutfield (eds.) (2010)**, *Intellectual Property and Human Development: Current Trends and Future Scenarios*, Cambridge, UK: Cambridge University Press.
- Wu, Tim (2005)**, “Intellectual Property, Innovation, and Decentralized Decisions”, *Virginia Law Review*, 92; 123-47.

CHARLES WIDGER ENDOWED UNIVERSITY PROFESSOR IN LAW, BUSINESS AND ECONOMICS, VILLANOVA UNIVERSITY.