**Beyond The Incentive-Access Paradigm?**

**Product Differentiation Theory and Copyright Reevaluated**

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Traditional economic analysis of copyright law and policy is grounded in a framework known as the incentive-access paradigm.[[1]](#footnote-1) Understood within this framework, copyright is one possible solution[[2]](#footnote-2) to the public policy problem generated by the public goods nature of informational works.[[3]](#footnote-3) To a large, though not complete, extent the informational works of the sort protected by copyright law exhibit the two features that define public goods. Such informational works are nonrivalrous, meaning that the use and consumption of the work by one person does not reduce the ability of others to use and consume it. Informational works are also nonexcludable, in the sense that, once created and published, it is impossible or more accurately very difficult to exclude others from using and consuming them. The non-excludable character of such works allows others to reproduce the work for a fraction of the cost incurred by the first developer, resulting in a price level that may endanger the ability of the developer to recoup his initial investment. The outcome is a suboptimal level of investment in developing informational works by developers and in making them available to consumers by publishers. Copyright, like some other intellectual property rights, is an attempt to correct this problem by conferring on the creator of informational works a limited set of exclusionary legal entitlements in regard to such works. The exclusionary legal entitlements allow the copyright owner to internalize a substantial part of the social value of the work thereby boosting the incentive for creation and publication. This social benefit of copyright comes, however, with a price tag. Legal exclusivity, at least in the absence of the unrealistic possibility of perfect price discrimination,[[4]](#footnote-4) leads to pricing strategies which generate deadweight loss, namely consumer demand for the informational work for a price higher than marginal cost that remains unsatisfied.[[5]](#footnote-5) Analyzed from this perspective copyright policy becomes a complex and often elusive balancing act between the relative social costs and benefits of specific institutional details of copyright law.

This traditional framework has been the dominant mode of the economic analysis of copyright during the past five decades and in a looser form pervaded American copyright thought for much longer. It supplied a method for coherent and structured thought about copyright policy questions, generated an abundance of scholarly literature, and left its mark on judicial opinions and other forms of legal reasoning. The framework, however, often proved hard to apply because it tended to give rise to conflicting theoretical arguments, to generate inconclusive results, and to be plagued by a host of empirical questions and insufficient information for answering them.

Recently the economic analysis of copyright in legal scholarship has taken a new turn. Legal scholars—most notably Christopher Yoo and Michael Abramowitcz in a series of pioneering articles[[6]](#footnote-6)—began to apply to copyright insights from two well established branches of economic theory known as monopolistic competition and product differentiation.[[7]](#footnote-7) The claim on behalf of this new theoretical strand of analysis was made at varying levels of ambition. At times product differentiation was acclaimed as a superior alternative to the traditional incentive-accesses paradigm.[[8]](#footnote-8) At other times it was presented as a valuable supplement to it.[[9]](#footnote-9) While the underlying economic models may be complex, the gist of the theory as applied to copyright is straightforward: informational works, even when protected by the legal exclusivity characteristic of copyright, are subject to competition from other informational works which constitute partial substitutes for them. The latest James Bond film, for example, competes with many other action-thriller films, and indeed with films of other genres and styles, that offer various viewers different levels of substitution for it. From this intuitive and simple premise follow a host of powerful and sometimes complex implications for the economic analysis of copyright. The scholars who explored these implications used them as the foundation for proposing specific reforms of copyright law or alternatively normative accounts that explain and support features of existing copyright law. The theoretical conclusions supporting these proposed reforms and accounts are typically presented as diverging from those generated by the traditional economic framework, as capable of generating more robust and conclusive results, or as resolving questions that were left in dispute under that framework.

While still a relative new comer, product differentiation theory is gathering force and influence within copyright scholarship. In some cases it is called upon to challenge what for many are deeply rooted assumptions about copyright law and its economic effects. Thus product differentiation theory has been cited to support the proposition that, contrary to common assumption, copyright does not create market power.[[10]](#footnote-10) More ambitiously, it has been invoked as the basis of the claim that copyright, except in rare cases, does not give rise to monopoly pricing and therefore does not create deadweight loss.[[11]](#footnote-11)

This article attempts to reevaluate product differentiation theory as applied to copyright law. This reevaluation is timely as the theory works its way into the mainstream of copyright scholarship and as premises based on it appear to be on their way to becoming part of the conventional wisdom within this scholarship. The reevaluation is particularly important in light of several shortcomings and worrying tendencies of existing theoretical discussions. First, parts of the application of product differentiation theory to copyright are muddled by ambiguities and obscurities. Second, partly due to these ambiguities there is a tendency to lay misplaced emphasis on monopoly power (or the lack thereof) in explicating the theory’s application to copyright. Third, some of the theoretical conclusions reached or implicitly assumed by writers in this vein are incomplete or simply erroneous. Fourth, reliance on product differentiation theory has led some to offer policy and doctrinal recommendations in the field of copyright that do not follow from the theory or at least are not unequivocally supported by it. All of this warrants another look at the application of product differentiation theory to copyright and a closer inquiry into what it can offer and justify as well as into its interaction with the traditional incentive-access paradigm.

We undertake this inquiry in four parts. Part I refines and clarifies the analytics of applying product differentiation theory to copyright. By clearly identifying the economic effects of copyright protection operating under conditions of competition between differentiated products it dispels some of the ambiguities of the current analysis, brings to light certain elements that were neglected by it, and dismisses the clearly erroneous conclusions that could be drawn from it. Part II examines from the point of view of economic efficiency the several somewhat conflicting assessments of copyright doctrine and proposals for its reform that were built on the new theoretical foundation. It argues that when product differentiation theory properly understood is applied with sensitivity to the details and complexity of copyright doctrine the results are mixed. Some of the existing doctrinal conclusions are cautiously validated. Others are revealed to be wrong, overstated, or simply hopelessly unclear. Others still seem to hinge on a complex calculus of the various economic effects of certain doctrinal features. Such a calculus is likely to require very rich information—much richer than is available to us now and perhaps richer than we can ever hope to obtain, and skill in understanding the implications of the information, skill which may be beyond the capacity of the institutions that make and apply copyright law. Economic efficiency is not the only normative framework for evaluating copyright law and the economic effects of copyright doctrine are relevant to some of the main alternatives to it. The two last parts of this article briefly examine some implications of product differentiation theory for normative goals other than efficiency that were suggested in the current literature. Part III focuses on the effect of product differentiation theory on attempts to promote distributive goals through copyright doctrine. It concludes that these effects are more complex and less unequivocal than assumed, making the distributive enterprise somewhat elusive and hard (although not necessarily impossible) to attain. Part IV discusses the relevance of parts of product differentiation theory to the normative assessment of copyright law from the perspective of democratic theory. It argues that what is referred to as the “democratic theory” of copyright is actually a collection of various normative outlooks that differ greatly from each other in their premises and in the degree to which they diverge from the efficiency criterion. As a result the interaction of product differentiation theory with democratic theory is somewhat different depending on the relevant variant of the latter.

What is the net result of the reevaluation of product differentiation theory undertaken in this article? Product differentiation theory is an important and much needed addition to traditional economic analysis of copyright. By analyzing copyright not as a monopoly but as operating within the context of diverse information products made by competing innovator firms which operates as partial substitutes for each other from the point of view of consumers, it gives us a better grasp of the economic effects of copyright. Its insights—many of which are already part and parcel of the economic theory of patent law—allow attuning the economic model closer to reality with important implications for the evaluation of copyright from the point of view of efficiency as well as, to some extent, other normative criteria. At the same time it is important to understand the limited extent to which product differentiation theory breaks with the traditional economic framework and the limitations on its capacity for offering conclusive and easy solutions to the questions that have vexed the economic analysis of copyright for decades. Product differentiation theory is best understood not as a substitute for the traditional incentive-access paradigm but as a supplement that should be integrated into it. It corrects the way that some of the benefits and costs of copyright protection are understood and measured and it helps to identify other benefits and costs that were previously mostly ignored. Once misguided notions, such as the idea that the shift of focus away from monopoly necessarily strengthens the case for strong copyright protection or that the absence of market power entails no deadweight loss, are dispensed with, what is left is a more rather than less complex economic model of copyright. This economic model requires taking into account more factors and typically necessitates richer information than the traditional one. In other words, to the extent that the arrival of product differentiation theory to copyright scholarship seemed like holding out the promises of quick fixes and easily obtainable conclusive answers, its actual effect is quite the contrary.

1. **Monopolistic Competition, Product Differentiation****, and Copyright Policy**

In this part we provide a general analytical framework for the discussion that follows of specific doctrinal-policy recommendations. Our aim here is to locate product differentiation theory within the present economic theory of intellectual property. More specifically, our purpose is to make two sets of points: first, to establish what sound economic analysis identifies as the central tradeoffs involved in providing intellectual property protection, and second to highlight what the importation of the economic theory of “monopolistic competition” based on “product differentiation” adds to copyright policy analysis in this regard.

1. *Intellectual Property Policy- A General Framework*

Intellectual property rights such as copyrights and patents confer on their holder the entitlement to exclude others from using the protected informational work for some period of time without the holder’s permission. The grant of such rights converts, that is, what are relatively nonexcludable goods into relatively excludable ones. For resources that are rivalrous in consumption, this grant of exclusionary or property rights is generally not considered troubling from an economic point of view since preventing or excluding use by one is necessary for use by another. However for goods that are nonrivalrous in consumption, of which informational works are a paradigm example, exclusionary rights may function inefficiently, wastefully preventing uses that would not detract from simultaneous use by others. The justification for incurring this potential inefficiency in the context of information goods is, of course, that without it such goods may fail to be generated in the first place. Lacking the ability to exclude others from accessing the good, creators of socially valuable information products may not be able to appropriate enough of the value of the product to recoup the costs they incurred in developing it, thereby discouraging future innovators from engaging in this activity. The central question facing intellectual property policy from an economic point of view is how much appropriability is needed for any class of innovations to enable their generation, since providing any more may result in wasteful underuse of the innovations.

The basic economic function, then, of patent or copyright protection is to enable the creator of an information good to charge a price for accessing that good that incorporates some of the “sunk” costs incurred in developing it. Any such price will be higher than what is, in static terms, the economically efficient price, which is equal to the marginal costs of producing and distributing the physical embodiment of the informational work. And the economic value represented by all the uses of all consumers willing and able to pay the efficient price but not the one charged by the copyright holder constitutes the measure of “deadweight loss” or static inefficiency associated with that degree of copyright protection. At this point in the analysis, there is a tendency to lapse into one or both of two related errors that it is important to guard against. On the one hand, the exclusion rights granted by copyright or patent protection over an informational work need not confer an economic “monopoly” where that refers, in the traditional definition, to the power over price and quantity that a firm enjoys when there are no rival substitutes for its product in the market.[[12]](#footnote-12) Monopoly power in this sense may be present in some cases, but it is neither an inherent nor necessary trait of intellectual property protection. On the other hand, whether or not an intellectual property right confers such “monopoly” power, to achieve its incentive function at all it must nevertheless confer some supramarginal pricing power. In the absence of any measure of power there will be no ability to recoup the fixed cost of development and no incentive. The effect of such power, in the absence of the unrealistic possibility of perfect price discrimination, will be some deadweight loss. Supramarginal pricing power and deadweight loss, then, are necessary traits of intellectual property rights.

With that understanding in place, consider the following three possible scenarios for a firm developing an expressive work – a book, a film, a song – that is potentially eligible for copyright protection:

*Scenario (1):* The work does not receive any copyright protection, rendering it vulnerable to “free-riding” consumers or “corrosive” competition that may undermine the firm’s ability to recoup its capitalized costs of development. The result would be no static inefficiency resulting from copyright barriers to access, but also no dynamic incentive to create provided.

*Scenario (2):* The firm obtains copyright protection for its work, which work has no or, at best very imperfect, substitutes, conferring on the firm “monopoly” power over the relevant market. The firm will use its pricing power to charge a profit-maximizing mark-up price over marginal cost. How much total revenue is generated by the marked-up price will depend on the size of the market or demand for this sort of good. Where the total revenues generated do not exceed the sunk costs of development, then they are understood as only “quasi-rents” that simply go to cover the costs of development, with the firm ultimately not realizing any supernormal returns or “economic profit.” Where the revenues do exceed the costs of development, then the firm does realize “rents” proper, or supernormal “monopoly” returns. Further, in such a case there is some amount of deadweight loss over and above that strictly necessary to generate the information work using copyright.

*Scenario (3):*  Finally, consider a third case where the firm’s copyrighted work faces competition from the copyrighted product of a rival firm – say, for instance, that both are action films competing for the summer movie market. Assume for present purposes that while consumers significantly prefer either movie to the next-best option vying for their entertainment dollar, they are indifferent as between the two films. In that case, then, neither firm enjoys a “monopoly” in the relevant market and in fact, although the ongoing subject of contention, in economic theory it is recognized that one possible outcome of such a duopoly situation is that prices approach their competitive level. The question for our purposes is what that competitive level will be. Consider two possibilities. In one, the firms price-compete all the way down to marginal cost, thereby undermining either one’s ability to recover their development costs and resulting in a net loss for each. In the other, the firms price-compete again, but now down only to average cost, so that each firm is able to recoup development costs and thus realize a “normal profit” but no rents, while charging a price that will incur some deadweight loss.[[13]](#footnote-13) Thus, the first possibility parallels scenario (1): no deadweight loss but also no incentive benefit. The second possibility illustrates how, even in the absence of any technical monopoly power or its corresponding supernormal returns, the grant of copyright can result in deadweight loss, and indeed must, if it is to serve its incentive function.

With these clarifications in hand, we can now identify with greater precision the specific tradeoffs involved in the policy question(s) of what level of intellectual property protection to provide. At any given level of intellectual property protection, there will be some innovations or informational works that enjoy more protection than is needed for their generation, meaning that the revenues generated by intellectual-property-enabled pricing power exceed the capitalized costs of development. Put another way, the proportion of the innovation’s social value that that level of intellectual property protection enables the innovator to privately appropriate or internalize exceeds their private costs of development. As a result, these innovators will enjoy supernormal returns and there will be some unnecessary deadweight loss. Another category of innovations will enjoy more or less just enough protection for their generation. Finally, some innovations will not be generated because not enough of the social value could be privately appropriated to justify the private costs of development. The core tradeoff at the heart of intellectual property policy is whether the benefits of extending protection to enable the generation of some subset of the third category of innovations (those “supramarginal” to the current level of intellectual property protection) will be worth the costs of increasing unnecessary deadweight loss incurred with respect to the first two classes of innovations (those “inframarginal” to the current level of intellectual property protection). Or, alternatively, whether the benefits of curbing protection to decrease the unnecessary deadweight loss associated with the first class of innovations is worth the cost of foregoing the generation of innovations in the second class.

Traditional copyright analysis has tended to remain at this level. It describes the basic policy tradeoff of copyright policy as whether the benefit of generating the supramraginal innovation outweighs the costs of heightened protection for “inframarginal” informational works, in terms of the inefficiency represented by unnecessary deadweight losses.[[14]](#footnote-14) This is the traditional incentive-access paradigm within copyright policy analysis. The paradigm assumes a necessary tradeoff between increased incentive for creating supramarginal innovations and decreased access to inframarginal innovations in the form of additional deadweight loss.

Patent scholarship, however, has added a further layer of analysis with respect to the effect of copyright protection on inframarginal innovations. This extra layer of analysis makes the introduction of product differentiation theory (to be elaborated momentarily) much less of a radical novelty in the analysis of patent policy by comparison to the copyright context. The basic additional insight is that the supernormal returns held out by increased levels of protection for inframarginal innovations will likely result in at least two kinds of “rent-seeking” activity by innovators. The first kind of activity is races to be the first to come up with the rent-generating innovation and capture the prize offered by it. The second is “invent-around” activity by rivals seeking to “cannibalize” some portion of the revenues enjoyed by existing incumbents by entering their own patent-protected functional substitute to satisfy the relevant market demand. Both sorts of activities will tend to involve high degrees of overlapping innovative activity on the part of firms, and thus result in wasteful duplication.[[15]](#footnote-15) Further, even when the activity induced by such rents isn’t strictly speaking duplicative or wasteful, it may nevertheless take up resources that could go to goods and activities in other economic sectors that, while socially more valuable, allow a smaller proportion of that social value to be internalized by private producers.[[16]](#footnote-16) Thus to increased unnecessary deadweight loss must be added these additional inframarginal costs of increased protection.

A final wrinkle is that where the rent-seeking activity successfully leads to additional entrants into the market for a product, there is the possibility that such added entry, by decreasing the degree of market power enjoyed by the earlier entrant, will result in driving down prices.[[17]](#footnote-17) Where such price competition takes place, then these rent-seeking wastes should not simply to be added to the deadweight loss cost, but rather should be understood as contributing to the reduction of that cost – being, in effect, an alternative cost of increased supramarginal incentives to increased deadweight loss. In sum, the analysis of rent-seeking innovative activity produced by patent scholars simultaneously adds a new set of costs from heightened protection while also potentially reducing one set of traditional costs.

1. *The Impact of Product Differentiation Theory on Copyright Policy Analysis*

Enter the economic theory of monopolistic competition between differentiated products. The main insight of the theory, originally developed by Chamberlin,[[18]](#footnote-18) is that alongside the two classic market models of a competitive market and a monopoly there is a third one which forms a middle ground between the two. In monopolistic competition each firm faces entry and competition from others (the competitive element), but each firm also enjoys a measure of market power over a subset of consumers (the monopolistic element). The source of this duality is the fact that each firm offers a differentiated product. The classic example is that of products differentiated along the dimension of the spatial location of sellers, resulting in different preferences of consumers depending on their travel cost to the various locations.[[19]](#footnote-19) The products, however, can be differentiated in regard to any quality relevant for consumer preferences. The fact that the products compete with each other means that prices will be lower and number of units sold higher by comparison to a monopolistic market. The fact that the products are imperfect substitutes and the limited pricing power of each firm result in higher price levels and lower number of units sold by comparison to a competitive market. Later models developed this basic insight and modeled differentiated product competition in various ways, leading to debates over whether and under which conditions it will result in socially wasteful over-entry by competing firms.[[20]](#footnote-20)

What did the recent importation of the insights of monopolistic competition based on product differentiation add to copyright policy analysis? Most importantly, it brought about a clear realization that a work that enjoys copyright protection may nevertheless face competition from rivals also enjoying such protection. In other words, the market conditions faced by a copyrighted work are best analyzed as those of a product competing with other differentiated products. The basic point that goods protected by intellectual property rights face competition had often been made before in the context of the familiar debate over whether such rights create a monopoly.[[21]](#footnote-21) The application of product differentiation theory, however, supplied a coherent model for understanding and analyzing this phenomenon instead of what previously seemed as an inevitable choice between a monopoly and a full competitive market model. This created a copyright analogue to what, to a large extent, was already recognized in the patent scholarship discussing the effects of invent-around activity: namely how the existence of intellectual-property-enabled rents may spur the entry of multiple firms, each seeking with their own intellectual-property-covered products to “divert” or “steal” (or, in the patent context, “cannibalize”) the sales of other rival variants, and the respective social costs and benefits of such a dynamic.

This basic understanding is common to the analyses of both Yoo and Abramowicz, the two main scholars who wrote about copyright and product differentiation. From that common platform, however, the two moved in different directions. Yoo, while not completely oblivious of some of the costs of differentiated product competition, emphasized its benefit in terms of reducing prices and associated deadweight loss. Abramowicz, on the other hand, seeks to highlight its costs in terms of duplicative activity and distortion of social resource allocation and the ways that these costs should lead us to significantly downgrade the net-benefit represented by the innovations resulting from increased copyright protection.

To be completed…

1. **Product Differentiation and Efficiency: Doctrinal Implications**

Assuming for now that the only normative goal behind copyright law is maximizing economic efficiency, can product differentiation theory supply guidance in shaping copyright doctrine in order to obtain this goal? Yoo and Abramowicz each make a series of recommendations about optimal copyright doctrine evaluated from this perspective. Intriguingly, although perhaps unsurprisingly given the different emphasis of their theoretical starting points, the main features of the two sets of doctrinal proposals form an almost exact mirror image of each other. In rough terms, Yoo recommends making copyright protection very strong, but also relatively narrow in the sense of prohibiting only high degrees of similarity to the original. Abramowicz, by contrast, suggests that certain aspects of copyright protection could be made weaker than traditionally assumed and that doctrines which make copyright protection broad in the sense of prohibiting lower degrees of similarity to the original are strongly justified. We take up these two efficiency-based doctrinal proposals separately. In regard to each one we first detail the gist of the copyright doctrine recommendations and then assess and critique these recommendations.

1. *Inclusive ,Intense and Narrow*

Yoo’s ideal doctrinal model of copyright is straightforward and it tracks closely the strong theoretical conclusions he draws from product differentiation theory. The key premise here is that widespread access to copyrighted works may be promoted by stimulating entry through strengthening copyright protection.[[22]](#footnote-22) In other words, the tension which is inherent in the traditional incentive-access paradigm is revealed to be a false one: simultaneous promotion of access and incentives turns out to be possible after all.[[23]](#footnote-23) The reason is the crucial importance that Yoo imputes to the price effect of differentiated product competition. Entrance by competitors causes the price to drop thereby reducing deadweight loss. Deadweight loss could never be eliminated altogether, but ideally it would be reduced to the minimal level predicted by the monopolistic competition model, in which each firm prices its product at average cost.[[24]](#footnote-24) As a bonus, the entrance of firms offering differentiated products produces another social gain in the form of increased tailoring of products traits to individual consumers’ preferences.[[25]](#footnote-25) Thus increased entry produces both a reduction of deadweight loss and a beneficial increase in product diversity. The way to promote entry is to strengthen copyright protection thereby increasing the available surplus in the relevant market and attracting entrants.[[26]](#footnote-26) Thus exactly in the cases where traditional theory prescribes cutting back protection—that is when there is concern over excessive price and deadweight loss, product differentiation theory counsels boosting protection up.[[27]](#footnote-27)

Yoo, however, does not indiscriminately preach increased protection. Rather, he distinguishes between three elements of copyright protection: scope, intensity, and breadth.[[28]](#footnote-28) Scope is measured by the number of wealth generating activities that fall within copyright protection of a particular work.[[29]](#footnote-29) The scope of protection may be affected by various doctrinal features such as the duration of protection or the exclusive entitlements given to the copyright owner. The scope of copyright, according to Yoo, determines the size of the market within which differentiated works protected by copyright compete.[[30]](#footnote-30)

Intensity is the degree to which copyright owners can appropriate the surplus created by the uses of their works which are within the encompassed scope.[[31]](#footnote-31) Intensity too may be affected by various doctrinal features such as the many exemptions and limitations that exist in the Copyright Act[[32]](#footnote-32) or the extent to which certain uses are exempted under the fair use doctrine.[[33]](#footnote-33)

Finally, breadth denotes the degree of similarity to the protected work that is covered by copyright protection.[[34]](#footnote-34) Broad copyright encompasses remote and abstract levels of similarity, while narrow copyright is limited to high and intense degrees of similarity. The breadth of copyright is affected by several doctrinal levers, such as the test for copyright infringement,[[35]](#footnote-35) the idea/expression dichotomy,[[36]](#footnote-36) the scene a faire doctrine,[[37]](#footnote-37) and the merger doctrine.[[38]](#footnote-38) The breadth of copyright is a legal constraint on the degree of substitutability of competing works. The broader copyright protection is the more imperfect substitutions or the less finely differentiated the competing works will be.[[39]](#footnote-39)

Identifying the relationship between the dynamics of differentiated products competition and these three relevant dimensions of copyright doctrine gives rise to an initial rough set of recommendations. Maximizing efficiency requires strong copyright protection in regard to the first two dimensions and weak copyright protection in regard to the third one. A wider scope of protection and a higher intensity will give rise to a larger surplus in the market,[[40]](#footnote-40) and increased ability of entrants to appropriate this surplus.[[41]](#footnote-41) This will attract entrants and will lead to two beneficial results. First, entry will result in reduced prices and decreased deadweight loss or in other words in increased access.[[42]](#footnote-42) Second, increased differentiation means greater variety of products which are better tailored to satisfy the specific preferences of consumers.[[43]](#footnote-43) As for the third dimension, a narrow breadth of protection will minimize the legal constraint on the entrance of close imperfect substitutes, a constraint which could have hampered the beneficial dynamic of entry just described.[[44]](#footnote-44)

The discovery that the traditional assumption of an inherent tradeoff between promoting entry and access turns out to be false is accompanied by a bonus for the cause of efficiency. Designing and administering an optimal legal regime appears to be a significantly more manageable and cheaper enterprise under the theoretical framework of product differentiation by comparison to the traditional framework.[[45]](#footnote-45) Under the incentive-access paradigm governmental institutions that make and apply the law have to attempt to calibrate the many doctrinal details of copyright to the lowest possible level that still supports the production of creative works.[[46]](#footnote-46) More accurately they have to shape copyright so that protection is only extended in those cases where the social benefit in the form of increased incentive outweighs the social cost in the form of decreased access.[[47]](#footnote-47) Such calibration requires massive amounts of information and high degree of skill. Both of which are expensive, or, more commonly, unavailable. Worse still, such a complex and uncertain governmental process is likely to fall prey to intensive levels of rent seeking activity by private parties trying to divert its results in their favor.[[48]](#footnote-48) By contrast, the doctrinal recommendations that follow from product differentiation theory greatly simplify the task of governmental institutions. All they have to do is to turn the three doctrinal knobs identified above in the clear and consistent directions identified thereby facilitating entry of differentiated products.[[49]](#footnote-49) At this point these institutions can rely “on the market to calibrate prices at the levels that ensure that authors do not earn supracompetitive profits.”[[50]](#footnote-50) Such an enterprise is much less demanding in terms of information and skill. Due to its simple and absolutist nature it is also much less vulnerable to wasteful and potentially distorting rent seeking activity.

If the position described above seems somewhat rosy it is not Pollyannaish. Yoo is not completely oblivious of some of the potential wasteful effects of unbridled competition between differentiated products. In his more sanguine moments Yoo claims that the potential problem of entry which “is necessarily duplicative and simply wastes resources… disappear[s] when viewed through the lens of product differentiation.”[[51]](#footnote-51) At other times, however, he recognizes that high levels of demand diversion may result in a net social loss. In other words, when much of the surplus appropriated by an entrant is generated not by increasing the surplus in the market by more tailored satisfaction of consumer preferences (demand creation) but by diverting demand from existing products (demand diversion) such an entrant may find entry privately profitable even when the net social benefit of the entry is negative.[[52]](#footnote-52) The negative effect of demand diversion is closely related to the level of substitutability between the competing products. The more perfect substitute of an existing product a newly entering product is the higher the level of demand diversion and the possibility of a net social loss.[[53]](#footnote-53)

Yoo recommends resolving this difficulty by finessing his discussion of the third doctrinal dimension (i.e. breadth). Lawmaking institutions, he explains, can calibrate the breadth of copyright protection to achieve the optimal level of substitutability.[[54]](#footnote-54) More specifically, when the level of substitutability seems too high and the danger of demand diversion strong the test for copyright infringement should be tuned so that lower degrees of similarity will constitute infringement (i.e. breadth should be increased); when substitutability seems low and the danger of too much demand diversion remote the infringement test should be tuned to require higher levels of similarity (i.e. breadth should be decreased).[[55]](#footnote-55)

To sum up, Yoo proposes replacing the traditional insistence on a fine and elusive tradeoff between maximizing incentive and access with the realization flowing from product differentiation theory that both could be promoted simultaneously. This realization translates into three doctrinal recommendations. First, the scope of copyright protection should be maximized in order to attract entrance by competitors offering partial substitutes of existing works. Second, the intensity of copyright protection should be maximized for the same reason. Third, the breadth of copyright protection should be generally minimized in order to remove the legal constraint on entry of substitutes, but its exact level should be fine tuned to prevent the danger of demand diversion and wasteful over entry. This framework will result in increased efficiency in the form of lower prices, reduced deadweight loss (ideally reduced to the minimal level at which producers can recoup their cost), and better satisfaction of consumer demand through greater product variety. On the administrative cost side, this system will be more efficient, compared to one based on the traditional paradigm, because it will require much less costly information and will be less susceptible to rent seeking by interested parties.

1. *Inclusive, Intense, and Narrow Critiqued*

While on first blush Yoo’s doctrinal recommendations may seem both coherent and substantively attractive, on closer scrutiny both of those qualities begin to crumble. As for coherence, Yoo’s analysis is either unclear or confused in critical junctures on both the doctrinal and theoretical levels. As for substance, rigorous application of product differentiation theory after the ambiguities and possible confusions were removed does not come close to yielding the conclusive results claimed. On the most general level the application of the important insights of product differentiation theory turn out to work best when integrated into the incentive-access paradigm rather than being a substitute for it. On a more concrete level, it becomes a highly contested question whether the doctrinal recommendations would lead, even in the majority of cases, to the claimed efficient outcomes in terms of either the substantive results or the administrative cost of the system.

To begin understanding some of the doctrinal ambiguities involved with Yoo’s proposal, consider the third doctrinal dimension of breadth. What exactly does making copyright protection relatively narrow mean? Does this narrow breadth limit protection to instances of close similarity attributable to copying of the original or does it extend only to cases in which the high degree of similarity is not the result of copying the original? Rephrased in more familiar doctrinal terms, the question is whether copyright protection, whatever the exact degree of similarity required for infringement, extends to cases of independent creation. If by advocating permitting the entry of close substitutes of copyrighted works Yoo means that independently created works which are very similar to the original should not be deemed infringing then current American copyright law is ahead of him. In fact, a fundamental feature of copyright law (one that distinguishes it from patent law) is the fact that independent creation is *never* an infringement.[[56]](#footnote-56) Copying is an essential element of infringement which will not occur in its absence irrespective of the degree of similarity. The improbable but illustrative case is that of an independently created work identical to a copyrighted one which under the current rule is not deemed to be infringing.[[57]](#footnote-57) In this sense American copyright law has zero “breadth”: it does not only allow close substitutions of protected works, it allows perfect substitutions, as long as they are independently created.

It is possible, of course, that Yoo did not mean to suggest a narrow breadth limited to independent creation as a reform of existing copyright law, but simply as a normative criterion. When evaluated by this yardstick existing positive law turns out to be quite commendable.[[58]](#footnote-58) This reading, however, is unlikely. In particular this understanding becomes incoherent in light of Yoo’s proposal that the problem of excessive demand diversion could be ameliorated by expanding copyright’s breadth through calibration of the existing substantial similarity test of infringement.[[59]](#footnote-59) This test is part of the existing doctrinal framework of copyright which is premised on the principle of zero breadth in regard to independent creation. A claim that this test should be calibrated to include broader levels of similarity would not make much sense.

The more plausible alternative is that Yoo means the breadth criterion to apply not to independently created works, but rather to subsequent works whose similarity to the original is attributable to copying. Under this reading the close substitutes that should be allowed by the narrow breadth are simply copies of the original that fall short (to a degree determined by how narrow the breadth is) of being verbatim copies. The difficulties created by this understanding of the narrow breadth element are more alarming. Understood this way the narrow breadth criterion undermines the applicability of the product differentiation model to the analysis or at least considerably affects its results. The gist of the matter is that in the case of informational goods close similarity attributable to copying usually means that the copier incurs a substantially smaller fixed cost. This is an important distinction from the non-informational goods context. If I open a coffee shop that competes with yours and “copies” most of the features of your product, it is likely I incur a fixed cost which is similar to yours. However, in regard to informational products where a very substantial part of the fixed cost is attributable to developing the product, a subsequent competitor who offers a very similar product due to copying is likely to incur a much lower fixed cost. Copying is much cheaper than creating. The consequences for the differentiated product model may be considerable. While the model does not necessarily require equal fixed cost by all competing firms, very substantial differences between the fixed cost of the creator and that of the imperfect copiers will produce a very different equilibrium than the one predicted on the basis of assuming equal fixed cost. Most importantly copiers who incur low fixed cost can recoup their investment at much lower prices than an original creator. The equilibrium price will thus be lower by comparison to a case in which all entrants incur a fixed cost similar to that of the creator. Given fierce enough competition, the price may drop to a level that does not enable the creator to recoup his fixed cost. Put differently, if not limited to independent creation the breadth criterion has an effect which is not limited to determining the levels of similarity between the differentiated products. In addition it has an effect to countervailing to that of increased scope and intensity. This countervailing effect applies asymmetrically to the original work and to partial copies of it.

A second thorny conceptual ambiguity haunts the distinction between scope and breadth. What exactly is the criterion for distinguishing variations in surplus generating activates related to the same work (i.e. scope) from variations in the level of similarity between the original and subsequent works (i.e. breadth)? Consider the case of a film adaptation of a novel or a translation which stick as closely to the original as possible. Is each of these yet another surplus generating use of the original which we should be quick to include within the scope of copyright protection or is it an imperfect substitute that we should tend to allow under the guideline of narrow breadth? There is a clear and intuitive sense in which the film and the translation are surplus generating uses of the same original work. But for a substantial number of consumers of the novel they are also imperfect substitutes of the original. The translation is an imperfect substitute of the original for those who fluently read both languages. The film is an imperfect substitute of the original for those who would answer the question “have you read Pride and Prejudice?” with the response “no, but I have seen the movie.” This ambiguity encompasses more than a limited number of cases along a fuzzy conceptual borderline. Many of the derivative uses that are potentially covered by modern copyright law seem to trigger the same conceptual difficulty. This substantially muddles the neat distinction between scope and breadth and the distinct doctrinal recommendations applying to each category.

Shifting to the more theoretical level, a more severe obscurity of Yoo’s analysis of copyright doctrine is revealed. The analysis completely disregards or obscures the interaction between the effects of copyright protection on inframarginal works and its effects on supramarginal works.[[60]](#footnote-60) Recall that the basic copyright policy dilemma is between increased levels of protection designed to attract supramarginal innovations and the negative effects of such increased levels on inframarginal innovations.[[61]](#footnote-61) When Yoo claims that increased levels of copyright protection can promote both more incentive and more access, it appears that much of his analysis applies both parts of this claim to the inframarginal innovation.

To see this assume that level of copyright protection X is exactly sufficient to attract the creation of an informational work A, say a comedy film, created by firm A. Level of protection X allows the creator of the film to price it at a level which is exactly sufficient to recoup his cost. In the absence of the impractical option of perfect price discrimination, A is sold for a flat price which means that some deadweight loss is present. However, under the assumption that level of protection X is just enough to attract the creation of the film the flat price charged is the minimal price that must be charged for the creator to recoup his investment and for the film to be created at all. Accordingly the deadweight loss incurred is at the lowest level that must be incurred if the film is to be created. Focusing just on the market for film A, traditional economic analysis suggests that nothing could be improved within the framework of copyright. Any reduction in the level of protection would cause the film not to be created at all. Any increase in the level of protection would bring about a higher price that will increase the amount of deadweight loss with no corresponding social benefit.

According to Yoo, however, product differentiation theory suggests that an increase in the level of protection could be a net improvement. Assume that copyright protection is boosted from X to 5X, that is the beefed up protection level increases the demand available to sellers five times. Initially the effect may indeed be a substantially increased price charged for film A, resulting in much higher deadweight loss. Over time, however, the surplus in the market will attract entrants offering close substitutes of film A, meaning only slightly different comedy films A1, A2, A3, etc. Eventually the market will reach the equilibrium point with a large number of slightly differentiated comedy films each sold for a price exactly sufficient for each firm to cover its cost and with corresponding levels of deadweight loss. In this sense, looking only at the market of film A and its close substitutes, both incentive and access were promoted. The increased protection created additional available surplus which attracted more entry and incentivized the creation of close substitutes. At the same time the competitive dynamic between the substitutes promoted access by bringing price and deadweight loss levels down *by comparison to the initial situation under the increased level of copyright protection*.

Nevertheless, the effects on the market for the film A are unlikely to be by themselves a net improvement over the initial situation *prior to the increase in the level of protection*. By comparison to that baseline, given certain circumstances, the entrance of substitutes may reduce somewhat the level of deadweight loss and it will have some positive effect of increasing variety. These positive effects are “purchased”, however, at a substantial cost. Each new product variant—in our example each new comedy film—requires the investment of the fixed cost of its development. This fixed cost which is duplicative from the start (since each new variant, being a partial substitute, diverts some existing demand) accumulates and becomes more duplicative with each entrant. It seems highly unlikely that at the equilibrium point the benefits from reduced deadweight loss and increased variety will outweigh the accumulated fixed costs of all entrants.

The picture becomes more complex once the element obscured by Yoo’s analysis is clarified. What is at stake in the copyright context is not just the effect on the inframarginal innovation but also the effect on the supramarginal one. To return to the film example, we previously stipulated that level X of copyright protection is just enough to incent the creation of comedy film A. But what of sci-fi film B? Assume that the demand for film B is roughly the same as for film A, but due to its reliance on expensive special effects its fixed cost is five times higher. Given these conditions, Film B will not be created under level of protection X. It is possible, however, to increase the level of copyright protection to 5X. This will be just enough to attract the creation of film B. At the same time the increased level of protection will create additional surplus in the market for film A and will trigger the product differentiation dynamic described above. The costs and benefits that have to be taken into account include the effects both on film A and on film B.

How do Yoo’s doctrinal guidelines fare when the dynamic of inframarginal and supramarginal innovations is kept in view? The costs and benefits of increased protection are as described above with the addition of the net social benefit of the supramarginal innovation- film B. Starting with the effect on the inframarginal film A, in the short run the price for film A will be increased with corresponding higher level of deadweight loss. In the long run, however, the new available surplus will attract entrants offering close variants A1-An. Entry will persist until the new equilibrium in which each firm charges the lowest price that allows it to recoup its fixed cost. The effects at this point relative to the baseline of lower level of protection X are: similar or somewhat lower levels of deadweight loss, some benefit from increased variety, and a substantial increase in the levels of fixed costs which are largely duplicative. There is, however, another effect that has to be taken into consideration: the net social benefit of film B. In some cases the positive effects—a possible reduction in deadweight loss, an increased variety, and the net social value of the supramarginal innovation—outweigh the negative effects in the form of duplicative and wasteful costs. But in other cases the net effect in the market for the inframarginal innovation will be negative to an extent that makes it more efficient to forgo the benefit of the supramarginal innovation and maintain the lower level of copyright protection.

Yoo’s analysis seems to assume that typically or in most cases the net result of increased protection will be positive, but the reason for this assumption is unclear. At times Yoo explains that the gains from increased entry in the form of reduced deadweight loss and increased variety will outweigh the negative effect of duplicative cost.[[62]](#footnote-62) But there is no necessary reason why this should typically be the case. In fact, as the base level of differentiated competition increases the positive effects of inducing further competition decrease and the negative one increases. Assume, for example, that in the next iteration of our example we consider whether to further increase the level of copyright protection in order to attract the next supramarginal innovation film C. Film C is an action-fantasy film requiring expensive locations, the most advanced special effects, and a concentration of stars who must be paid stars’ salaries. It will only be created if the level of copyright protection is 8X. Increasing the level of protection from 5X to 8X will create new available surplus in the market for film B causing there differentiated product competition. The same is true of the market for film A that will undergo a second wave of entry by differentiated products. At the starting point for this second iteration, however, the market for A is already relatively saturated with imperfect substitutes A1-An. This means that new entering films will offer finer degrees of variety by comparison to the first wave. The result is a smaller benefit from increased variety, a higher degree of wasteful demand diversion, and a higher likelihood of net negative effect in the market for A.

At other times, Yoo suggests that the harmful effect of wasteful duplicative cost could be reined in by adjusting the breadth dimension of copyright.[[63]](#footnote-63) As mentioned, the doctrinal guidelines required a narrow breadth of copyright protection in order to allow the entry of close substitutes,[[64]](#footnote-64) but they also called for some flexibility of this parameter in order to compensate for the problem of wasteful demand diversion.[[65]](#footnote-65) In more concrete terms, whenever an overcrowded product space and demand diversion seem to rise to a problematic level, the substantial similarity test for copyright infringement could be adjusted to resolve the difficulty. Smaller degrees of similarity sufficient for establishing infringement will push the imperfect substitute products away from each other thereby reducing demand diversion. As Yoo recognizes, this is not an absolute remedy. Forcing more substantial differences between the competing differentiated products has the additional effect of reducing the intensity of competition and its beneficial effect on price and deadweight loss. The outcome is a fine balance that has to be drawn through the substantial similarity test controlling breadth between prohibiting too close substitutes and allowing substitutes which are close enough.[[66]](#footnote-66) At the end, even assuming an ability to adjust the breadth parameter in an informed way, there is no guarantee that increased copyright protection will result in a net social benefit. As the baseline level of protection rises, further increases generate a higher magnitude of negative effects in the markets for inframarginal innovations. As this dynamic unfolds it becomes progressively less likely that the benefit of the supramarginal innovation will outweigh the negative effects of increased protection.

Where does all of this leave us? Properly understood within the inframarginal-supramarginal innovation framework, product differentiation theory is an important corrective to the traditional economic analysis of copyright. The traditional model assumes a monopoly by the copyright owner. It therefore analyzes the effects of incremental increases in protection within markets for inramarginal innovations in terms of monopoly pricing. Product differentiation theory operates under the much more plausible assumption that in most cases markets for informational works will follow the model of monopolistic competition between differentiated products. It does not follow, however, that a uniform set of doctrinal recommendations along the three dimensions suggested by Yoo could be implemented in all or even the majority of cases. Nor does it follow that normatively assessing the desirability of particular configurations of copyright doctrine does not necessitate a complex comparison of competing effects on incentive and access. In fact, conducting such an assessment within the product differentiation framework involves an even more complex and information-demanding balancing act. As we have seen one has to take into account and assess the magnitude of: a. the net social value of the supramarginal innovation; and b. the effects of differentiated product competition in the markets for inframarginal innovations on: pricing and deadweight loss; increased product variety, and wasteful duplicative fixed cost. The second set of effects will vary greatly depending on various parameters such as the existing level of product variety or “density” within the relevant markets.

In short, any hope being able to of heuristically follow a predefined set of doctrinal guidelines (inclusive scope, strong intensity, and narrow breadth) even in the majority of cases evaporates. We are left with an even more complex and intricate incentive-access balancing act.

By now it should be apparent that any claim for the superior qualities of product differentiation theory in terms of the manageability of the system or its informational cost falls flat. Far from being able to follow a more or less stable and uniform set of doctrinal guidelines and leave it up to the market to calibrate prices as to achieve efficient results, institutions making and applying copyright law are required to engage in a demanding and complex balancing act. As explained, such an exercise is likely to require more information and probably more skill than under the traditional economic approach. To take a particularly strong example, recall Yoo’s suggestion that the substantial similarity test for copyright infringement should be adjusted to achieve an optimal balance between allowing competition which is robust enough to produce the beneficial effect in terms of price and deadweight loss and preventing excessive levels of demand diversion and duplicative costs. The substantial similarity test for infringement is one of the more incoherent, elusive, and hard to predict areas of copyright doctrine. One could find there different courts taking various approaches and vague legal formulas such as “the total concept and feel” of the compared works. Imagine judges or, to the extent that the adjustment is to occur on the application level, juries trying to calibrate such vague formulas of the level of required substantial similarity to track the optimal balance given product density and fierceness of competition in a particular market. Making such adjustments in a way which even roughly tracks efficiency considerations will demand very high levels of information and skill, indeed most probably prohibitively expensive levels. The same is likely to be true, to a lesser degree, of other attempts by legal institutions to apply product differentiation theory to concrete copyright doctrine questions. To observe that deriving specific policy and doctrinal conclusions requires a high level information and skill is not a criticism of the substantive merit of the theory. It does indicate, however, that a legal system based on the theory will be demanding in terms of information and skill and expensive to operate.

A similar analysis applies to the implications of product differentiation theory for the public choice aspect of the copyright system. A system which makes decisions about shaping and applying the law on a basis of a theoretical model which is complex and information-demanding is more likely to be targeted by private interests seeking to influence the shape of the law in a way which is favorable to them. Moreover, product differentiation theory itself helps explaining why copyright and especially copyright policy which is attuned toward increasing the scope and intensity of protection is likely to attract high levels of rent seeking. The possibility of increasing protection in the inframarginal market offer incumbents the lure of short term supranormal rents through higher prices. As explained, in the long run these rents will dissipate due to entrance by competitors offering differentiated products. Each round, however, will leave behind a larger number of incumbents with an interest to seek yet another round of increased protection and the short term rents it can offer.

1. *Weak(er) and Broad*

The work of Abramowicz on the implications of product differentiation theory for copyright doctrine is too extensive to exhaustively cover here.[[67]](#footnote-67) It is, however, possible to plausibly identify two sets of doctrinal conclusions as the heart of this work. The first is the insight that in many cases economic efficiency would mandate that the strength of copyright protection[[68]](#footnote-68) should be weaker than the level assumed to be optimal under traditional economic analysis. The second set of conclusions is based on the principle that copyright protection should include strong powers to control the creation of works that are similar to existing ones even if the degree of similarity is fairly remote and abstract. In the terms used above this is the equivalent of making copyright protection relatively broad. While the two principles might appear to be in conflict, once the common theoretical drive behind them is understood it becomes apparent that they are in fact dovetailing with each other. Like Yoo’s, this basic theoretical drive is found in product differentiation theory. But unlike Yoo, Abramowicz’s main focus is on the element of demand diversion. Thus starting with the same theoretical framework, but giving salience to different elements of it, the two develop doctrinal sensibilities that are strikingly polar. The one, as we saw, advocates strong (i.e. inclusive as well as intense) and narrow copyright protection. The other emphasizes the virtues of weak(er) and broad copyright.

The term demand diversion refers to the basic logic that generates misalignment between the private incentives of firms and social welfare in the context of competition between differentiated products. The gist of this logic is that a firm is indifferent to whether its profits are generated through new satisfaction of consumer demand (i.e. demand creation) or through the diversion of demand already satisfied by other firms (i.e. demand diversion). As long as the existing surplus in a particular market is such that at a minimum cost will be covered, a firm will enter the market whether its revenue is derived from demand creation or demand diversion. But it is only when the social benefit of increased demand satisfaction outweighs the cost incurred by the firm that the entry will be socially efficient. Consider, for example, a firm that faces the decision of whether enter the market for the silly teen age comedy of the summer. Assume that the market is already saturated with films so that any film created by the firm will be extremely close to many others and thus will generate only miniscule social value in the form of new demand satisfaction. This fact notwithstanding, given a surplus level in the market that will allow the firm to cover its cost by diverting consumers from existing films it will choose to enter. If the firm’s cost is greater than the social value of the minuscule increase in demand satisfaction generated by the film, this is a case of over-entry. The firm entry to the market is a net social loss brought about by the misalignment between private incentive and social effect.

Over-entry is relevant to the copyright incentive/access balance because when it occurs the incentive side of the tradeoff turns out to represent a net cost rather than a benefit. An increased incentive to enter that generates over-entry should be avoided rather than be sought after. The implication for the incentive/access paradigm, however, extends well beyond the arguably extreme case of over-entry. Even when the effect of demand diversion falls short of over-entry, it reduces the net social value of entry. Thus as a market becomes saturated with close substitutes the social value of each additional entry declines progressively even prior to the point where an additional entry constitutes a net social loss. This effect goes to the heart of the incentive/access tradeoff. Its implication is that the social value of the incentive side of the tradeoff should be discounted to the same extent that the social value of entry is reduced by demand diversion. The prospect of incenting the creation of another multibillion dollar film seems much less lucrative when it turns out that the social value of the film (as opposed to the expected revenue of its creators) is minimal because the film would mainly divert existing demand from similar films. The incentive/access calculus may produce significantly different results when adjusted to take this effect into account.

The first set of doctrinal conclusions pulling in the direction of somewhat weaker copyright protection follows directly from this insight. As explained, in cases where additional entry to markets for informational works is likely to result in a significant amount of demand diversion the social value of such entry declines and in extreme cases it may be negative. It follows that in such cases the strength of copyright protection should be adjusted downward by comparison to the dictates of the conventional incentive/access paradigm. As the social value of entry resulting from additional increments of protection declines it will be outweighed sooner by mounting social cost in the form of curtailed access. Conversely, to the extent that the social value of entry is significantly diluted by demand diversion weaker protection with its associated levels of increased access will be justified. Copyright protection, especially in contexts where the relevant markets are saturated with many close substitute products, should be made weaker than previously assumed.

This principle is reflected in several doctrinal contexts. It mandates a relative willingness to excuse certain subsets of potentially infringing activity or tolerate non-enforcement against it.[[69]](#footnote-69) Similarly, the fair use doctrine should be applied liberally allowing many secondary uses of copyrighted works to escape liability,[[70]](#footnote-70) especially if certain factors of the fair use doctrine could be calibrated to capture cases in which demand diversion is likely to be high.[[71]](#footnote-71) Finally, the principle provides a more robust justification for the various exemptions and limitations on protection in the Copyright Act,[[72]](#footnote-72) by highlighting the possibility that the total social cost in the form of decreased incentive for entry associated with these rules is not as high as previously assumed.

If the first set of conclusions suggests that in certain cases copyright protection should be scaled back due to the effect of demand diversion, the second one proposes that certain features of copyright protection could be adjusted to actively curb this effect and reduce inefficient entry to markets of informational works. In other words, certain doctrinal levers may place a legal constraint on duplicative and wasteful entry to markets that are likely to involve high “density” of product space.

Consider, Abramowicz’s first and most important example of such a doctrine: copyright’s expansive entitlement of preparing derivative works.[[73]](#footnote-73) Under the traditional incentive/access paradigm the case for such an expansive doctrine is precarious. The derivative works entitlement allows creators to capture a larger chunk of the social value of their works. The result is an increased incentive that can attract the creation of works that would not have recouped their development cost in the absence of the entitlement. This benefit comes, however, with costs in the form of deadweight loss in the markets for secondary uses of the work and transaction costs. The derivative work entitlement is justified only if the social value it creates through increased incentive outweighs its costs in the form of reduced access in derivative markets and transaction costs.[[74]](#footnote-74) Whether this is indeed the case is highly uncertain and dependent on unavailable empirical information.[[75]](#footnote-75) Product differentiation theory, however, offers an additional rationale for the derivative works entitlement, one that can justify it even when the strict incentive/access tradeoff is obscure or seems to point against protection. Understood from this different perspective, the derivative works entitlements is a means for preventing wasteful excessive entry in the derivative market. Since derivative works are rarely close substitutes of the original work, the main concern addressed by the doctrine is that of wasteful competition in each of the derivative markets.[[76]](#footnote-76) The main concern, in other words, is not of demand diversion in between a flurry of Dune computer games and the original Frank Herbert book, but rather that of demand diversion in between the various Dune-based computer games. By placing in the hands of the copyright owner a centralized right to control entry to all derivative markets the entitlements of making derivative works prevents this specter of a wasteful excessive entry in the derivative markets.[[77]](#footnote-77)

A similar logic pertains to the broad breadth of copyright’s reproduction entitlement.[[78]](#footnote-78) The derivative works entitlement aside, copyright’s basic prohibition on unauthorized copying encompasses a large area. This area stretches to include levels of similarity that go well beyond the ordinary meaning of the term “copy”, and elements such as characters, plot lines, and well delineated general themes.[[79]](#footnote-79) Once again, justification for this extensive breadth under traditional economic analysis hinges on the somewhat precarious and hard to verify assumption that the value of increased incentive generated by broader protection outweighs the concomitant costs. Once again, a stronger and clearer rationale could be found in the fact that this wide breadth of protection guards against wasteful excessive entry. Excessive entry in which market? It appears that Abramowicz argues that, given the current reluctance of many courts to clearly demarcate the borderline between the reproduction and derivative works entitlements,[[80]](#footnote-80) the reproduction entitlement performs this role both in regard to competition between the original and works that are close substitutes for it and in regard to competition between derivate works which are close substitutes of each other. A more coherent doctrine, however, would create a division of labor with the derivative works entitlements applying to the latter situation (e.g. the competition between various computer games based on the film Lord of the Rings) and the reproduction entitlement applying to the former (e.g. the competition between the original Superman and Wonderman).[[81]](#footnote-81)

To summarize, Abramowicz derives two doctrinal guidelines from product differentiation theory. Both of those guidelines justify outcomes that may diverge significantly from those supported by the traditional economic framework. First, due to the dilutive effect of wasteful competition between close substitutes on the social value of incentives created by copyright protection, the strength of this protection should be weaker than conventionally assumed. Doctrinal features that have such a weakening effect on the strength of protection, such as a liberal fair use defense, various other statutory exemptions and limitations, and a readiness to tolerate certain levels of possibly infringing activity, find support in this principle. Second, certain features of copyright law may be adjusted to directly limit wasteful competition between close substitutes by creating a centralized entitlement of controlling entry to markets vulnerable to such a dynamic. An extensive derivative works entitlement and a capacious reproduction entitlement find support in this rationale. Copyright protection, in other words should be made relatively weak but broad.

1. *Weak(er) and Broad Critiqued*

To be completed…

1. **Product Differentiation and Distributive Justice**
2. **Product Differentiation, Democratic Theory and Human Flourishing**

1. Glynn S. Lunney, Jr., Reexamining Copyright's Incentives-Access Paradigm, 49 Vand. L. Rev. 483, 499-554 (1996) (coining the term “the incentive/access paradigm” and exploring the paradigm’s premises). [↑](#footnote-ref-1)
2. For alternative solutions to public goods problems and their possible application to informational works see William W. Fisher III, Promises to Keep 200-202 (2004) [↑](#footnote-ref-2)
3. On public goods see J.G. Head, Public Goods and Public Policy, 17 Public Finance 197 (1962); Thomas E. Borcherding, Competition, Exclusion, and the Optimal Supply of Public Goods, 21 J. L. & Econ. 111, 111-12 (1978); Samuelson, *The Pure Theory of Public Expenditure,* 36 REV. ECON. & STAT. 387 (1954). For examples of the analysis of informational works as public goods see e.g. Kenneth Arrow, *Economic Welfare and the Allocation of Resources for Invention,* in THE RATE AND DIRECTION OF INVENTIVE ACTIVITY: ECONOMIC AND SOCIAL FACTORS 609-25 (National Bureau of Economic Research 1962); William W. Fisher III, Reconstructing the Fair Use Doctrine, 101 Harv. L. Rev. 1661, 1700-1704 (1988); William M. Landes & Richard A. Posner, An Economic Analysis of Copyright Law, 18 J. Legal Stud. 325, 326-27 (1989); Mark A. Lemley, The Economics of Improvement in Intellectual Property Law, 75 Tex. L. Rev. 989, 994-95 (1997). Cf. William R. Johnson, The Economics of Copying, 93 J. Pol. Econ. 158, 161 (1985). [↑](#footnote-ref-3)
4. Perfect price discrimination is the ability to charge each consumer exactly the price he is willing and able to pay for the relevant good. Perfect price discrimination, were it possible, would eliminate the problem of deadweight loss by allowing full satisfaction of all consumer demand above marginal cost. Perfect price discrimination, however, is not a feasible option in real markers because its informational and transactional requirements make it prohibitively expensive. In some context, however, it is feasible to employ various strategies of partial price discrimination based on charging different groups of consumers different flat prices. Partial price discrimination schemes are becoming increasingly available and increasingly fine-grained as technology that reduces their informational and transactional cost develops. The economic and other social effects of various partial price discrimination schemes, their desirability as a matter of policy, and the extent to which legal doctrine should encourage them is the subject of debate in legal scholarship. See e.g. James Boyle, Cruel, Mean, or Lavish? Economic Analysis, Price Discrimination and Digital Intellectual Property, 53 Vand. L. Rev. 2007(2000); Julie Cohen ; William W. Fisher III, When Should We Permit Differential Pricing of Information?, 55 UCLA L. Rev. 1 (2007); Glynn S. Lunney Jr., *Copyright’s Price Discrimination Panacea*, 21 HARV. J. L. & TECH. 387 (2008). Our analysis here brackets the possibility of partial price discrimination. [↑](#footnote-ref-4)
5. See Fisher (1988) at; Lunney (1996) at. Sometimes scholars divide the social cost of intellectual property protection into a static cost and a dynamic cost. The static cost is the allocative inefficiency in a market for consumptive uses of an informational work generated by over-marginal-cost prices. The dynamic cost is the increased cost for future creation of information works generated by intellectual property protection of existing works, attributable to the fact that informational works often serve as inputs for the creation of subsequent informational works. See Landes & Posner (1989), at 332-35; Landes & Posner (2003), at 66-70 (describing copyright’s “cost of expression”). Lemley (1997), at . To lustrate, a novel protected by copyright and priced over marginal cost will generate to harmful effects: inefficient levels of access by potential readers of the novel; and inefficient levels of access by potential creators interested in using elements of the novel for creating their own informational works, resulting in reduced levels of such subsequent works. Distinguishing these two elements of the social cost of intellectual property rights is useful. It highlights the fact that this cost effects both consumption and subsequent creation and the different ways in which the cost is operationalized in regard to those two effects. For our purposes here, however, it is sufficient to refer to the social cost of intellectual property rights in the form of reduced access (or “deadweight loss”) without distinguishing between the effect on consumptive uses and the effect on subsequent creation. [↑](#footnote-ref-5)
6. Christopher S. Yoo, *Copyright and Product Differentiation*, 79 N.Y.U. L. REV. 212 (2004); Michael B. Abramowicz, *An Industrial Organization Approach to Copyright Law*, 46 William and Mary L. Rev. 33 (2004); *A Theory of Copyright's Derivative Right and Related Doctrines*, 90 Min. L. Rev. 317 (2005); *A New Uneasy Case for Copyright* (Forthcoming 2011). [↑](#footnote-ref-6)
7. See [↑](#footnote-ref-7)
8. [↑](#footnote-ref-8)
9. [↑](#footnote-ref-9)
10. Stadler; See Katz [↑](#footnote-ref-10)
11. Lemley, Book Review [↑](#footnote-ref-11)
12. The traditional formulation of “monopoly power” is itself a somewhat ill-defined concept, since any firm’s product will face some downward competitive pressure on its price from alternative uses of consumer resources, whether or not such uses are seen as “substitutes.” In other words, pricing power and substitutes are best understood as matters of degree rather than bright-line categories. [↑](#footnote-ref-12)
13. We assume here, as a further simplification, that the development costs for each film were the same. [↑](#footnote-ref-13)
14. And, perhaps, any distributive concerns raised by the transfer of surplus from consumers to producers underlying innovators’ supernormal returns. [↑](#footnote-ref-14)
15. Kitch 1977; McFetridge 1980; Merges & Nelson 1990; Grady & Alexander; Fisher 2001. [↑](#footnote-ref-15)
16. Lunney 1997; Fisher 2001 (Lunney being the main exception in applying his insight to the copyright context). [↑](#footnote-ref-16)
17. [↑](#footnote-ref-17)
18. [↑](#footnote-ref-18)
19. [↑](#footnote-ref-19)
20. [↑](#footnote-ref-20)
21. See e.g. Edmund w. Kitch, Elementary and Persistent Errors in the Economic Analysis of Intellectual Property (2000). [↑](#footnote-ref-21)
22. Yoo 251. [↑](#footnote-ref-22)
23. [↑](#footnote-ref-23)
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51. [↑](#footnote-ref-51)
52. 261 [↑](#footnote-ref-52)
53. [↑](#footnote-ref-53)
54. [↑](#footnote-ref-54)
55. 272. [↑](#footnote-ref-55)
56. [↑](#footnote-ref-56)
57. The classic case is Sheldon [↑](#footnote-ref-57)
58. Or indeed it may require a slight modification in creating a narrow breadth of protection that extends to independent creation. [↑](#footnote-ref-58)
59. [↑](#footnote-ref-59)
60. See supra . [↑](#footnote-ref-60)
61. Supra text accompanying notes 00-00. [↑](#footnote-ref-61)
62. [↑](#footnote-ref-62)
63. [↑](#footnote-ref-63)
64. [↑](#footnote-ref-64)
65. [↑](#footnote-ref-65)
66. [↑](#footnote-ref-66)
67. See Abramowicz [↑](#footnote-ref-67)
68. Abramowicz does not employ Yoo’s distinction between scope and intensity. Accordingly the strength oc copyright indiscriminately involves both of those dimensions. [↑](#footnote-ref-68)
69. [↑](#footnote-ref-69)
70. [↑](#footnote-ref-70)
71. [↑](#footnote-ref-71)
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