

## COPYRIGHT AND THE CUSTOMIZATION EFFECT

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*The production of copyrighted works can be arrayed on a spectrum that runs from commoditization to customization. At one end, the authors of commoditized creativity produce works on a speculative basis and sell copies of those works in a market of anonymous consumers. At the other, the authors of customized creativity interact with known, individual clients and tailor works to fit their tastes and needs. The narratives conventionally invoked to explain why copyright is valuable to both authors and society implicitly assume that authors produce commoditized creativity. This Article explores the notably different—and likely less significant—role that copyright plays in facilitating creative production near the customization end of the spectrum.*

*One basic insight is a descriptive theory of demand for copies of customized works that this Article calls the customization effect. Intense and diverse preferences tilt markets strongly toward customized, rather than commoditized, creativity. The customization effect is driven by the fact that these same preferences also push demand for copies among nonclients—that is, among parties to whose tastes and needs works are not customized—toward zero and force authors to rely solely on the fees that clients agree to pay in advance to fund their creative endeavors. The emergence*

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*of the customization effect has significant ramifications for copyright's normative justification. Copyright becomes irrelevant under its dominant incentive-to-create (or "market-buffer") theory. There is no collective action or public goods problem for copyright to solve. To the extent that it exists, copyright's justification must instead reside in less commonly discussed theories, namely transactional theories and the theory of the firm.*

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#### I. INTRODUCTION

The production of copyrighted works can be arrayed on a spectrum that runs from commoditization to customization.<sup>1</sup> At one end, the authors of commoditized creativity produce works on a speculative basis and sell copies of those works in a market of anonymous consumers. At the other, the authors of customized creativity interact with known, individual clients and tailor works to fit their tastes and needs.

Without discussion or even acknowledgement, the conventional copyright theory that explains why copyright is valuable to both

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1. See *infra* Subpart II.A.

authors and society implicitly assumes a model of creative production that involves a significant degree of commoditization. This focus on commoditized creativity is in one way understandable: commoditized creativity is the primary mode of creative production in use today. This Article, however, explores the notably different—and likely less significant—role that copyright plays in facilitating the production of creative works near the customization end of the spectrum.<sup>2</sup> More specifically, it argues that copyright is irrelevant under copyright’s traditional normative justification in some markets that tilt strongly toward customization, and it articulates a demand-side explanation for this irrelevance.

For consumers, the choice between commoditized and customized creativity involves a cost–value tradeoff.<sup>3</sup> The lure of commoditized creativity is principally its lower price tag. The sunk costs of producing the first copy of a work (“first-copy costs”) can be spread over the sale of a larger number of copies, and manufacturing processes benefit from economies of scale. Customized creativity is more costly. Clients must invest time and money in communicating their tastes and needs to authors, they may be forced to bear all of the first-copy costs, and they do not benefit from significant economies of scale. Yet, when consumers derive significant value from works that have been tailored to fit their particular tastes and needs, they are willing to pony up to pay for customized creativity.

To talk coherently about the role that copyright plays in augmenting incentives for the production of customized creativity, a bit of new terminology is essential. Customized creativity differs from

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2. Copyright scholars have considered when copyright protection should be tailored to particular industries. Michael W. Carroll, *One Size Does Not Fit All: A Framework for Tailoring Intellectual Property Rights*, 70 OHIO ST. L.J. 1361, 1406–07 (2009) (proposing a framework to analyze when tailoring intellectual property rights would enhance social welfare); cf. DAN L. BURK & MARK A. LEMLEY, *THE PATENT CRISIS AND HOW THE COURTS CAN SOLVE IT* 95–108 (2009) (arguing in favor of judicial tailoring on an industry-by-industry basis in patent law). However, they have not considered how the customization of creative goods—that is, the tailoring of the protected works to the tastes and needs of an author’s clients—affects copyright. In his fascinating study of copying and copyright in the tattoo industry, Professor Aaron Perzanowski discusses the customization of the atmosphere in a tattoo parlor to reflect the tattoo artist’s sensibility and the creation of custom designs in the sense of one-of-a-kind designs for clients. Aaron Perzanowski, *Tattoos & IP Norms*, 98 MINN. L. REV. 511, 586, 588–89 (2013). These discussions invoke different concepts of customization than the one employed in this Article. Neither focuses predominantly on the tailoring of goods or services to individual clients’ tastes and needs. Cf. *infra* note 29 (discussing the distinction between customized works and unique copies of works).

3. Joseph Lampel & Henry Mintzberg, *Customizing Customization*, 38 SLOAN MGMT. REV. 21, 24–26 (1996); Roger W. Schmenner, *How Can Service Businesses Survive and Prosper?*, 27 SLOAN MGMT. REV. 21, 24–25 (1996).

commoditized creativity in that the parties who might want to reproduce customized creativity in new copies fall into two distinct groups. There are the *clients* who hire authors to provide customization services and who desire *front-end copies*. Then, there is everyone else—a group that includes both authors’ potential clients and their market competitors—who can be called *strangers* for convenience. When strangers make copies, they make *back-end copies* of already existing works that, by definition, were tailored to someone else’s tastes and needs at an earlier point in time.

The existence of clients opens up an additional business model for the authors of customized creativity. Authors who generate commoditized creativity work on a speculative basis, so they must rely on revenue from sales of copies in a market after the work has been created to recoup their first-copy costs. Authors who generate customized creativity can, in theory, attempt to replicate the commoditized-creativity business model as closely as possible. After crafting a work for a particular client, they can attempt to sell or license back-end copies to strangers. However, they can also do something that the authors of commoditized creativity cannot: they can use contracts to charge clients upfront fees for the service of customizing a work to their tastes and needs (and, sometimes, the production of tangible, front-end copies).

Assume for the moment that an author who provides customization services relies entirely on upfront client fees to recoup her costs. (We will return below to discuss why some authors are forced to rely solely on client fees.) This business model has major implications for copyright’s role in incentivizing customized creative production. Copyright becomes less important—and perhaps even irrelevant—under the dominant normative justification of copyright, but it remains important—and perhaps even grows in importance—under less commonly discussed normative justifications.

Copyright’s dominant justification is usually called the *incentive-to-create* theory or the *incentives-access paradigm*.<sup>4</sup> However, shifting from a name that invokes the theory’s goal to one that focuses on its mechanism, this Article will refer to it as the *market-buffer* theory.<sup>5</sup> According to this theory, copyright solves a public goods or collective action problem. In the sadder “before” picture of a world without

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4. For classic restatements of the theory, see WILLIAM M. LANDES & RICHARD A. POSNER, *THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW* 37–41 (2003); Shyamkrishna Balganesh, *Foreseeability and Copyright Incentives*, 122 HARV. L. REV. 1569, 1576–77 (2009); Mark A. Lemley, *Property, Intellectual Property, and Free Riding*, 83 TEX. L. REV. 1031, 1031 (2005); Glynn S. Lunney, Jr., *Reexamining Copyright’s Incentives-Access Paradigm*, 49 VAND. L. REV. 483, 485–86, 492–93 (1996).

5. The retitling of the theory avoids the confusion of having to discuss theories that explain how copyright augments incentives to create that are distinct from the incentive-to-create theory. See *infra* note 9.

copyright, society may value creative works enough to pay the first-copy costs of creating the works, but there is no easy way to get the small contributions of many consumers to authors. A competitive market drives the price of copies down to the marginal cost of production and prevents authors from charging the price premium that they need to recoup their first-copy costs. As a result, individuals choose not to become authors, and society misses out on welfare-enhancing creative production. Copyright intervenes to yield a happier “after” picture by resolving the collective action problem. It buffers authors from competition in the market for copies of their works. In turn, this market buffer gives authors some hope that they can charge a price premium for each copy and force individual consumers to chip in to help pay the first-copy costs that the author incurred.

If the authors of customized creativity rely entirely on client fees for customization services to recoup their first-copy costs, copyright becomes irrelevant under the market-buffer theory. Society has no need for copyright, as there is no collective action or public goods problem to be solved. A single party—the client to whose tastes and needs the work is tailored—derives the full benefit of the work and foots the full bill for producing the work. Furthermore, because they are not suing strangers who make back-end copies, authors do not even derive any private value from copyright as a buffer against competition in the market for copies of creative works.

A business model for customized creative production that focuses exclusively on client fees, however, does *not* render copyright categorically irrelevant. Rather, it means that we need to be more open-minded and look beyond the market-buffer mechanism in the conventional theory to understand how copyright augments incentives. Two less frequently discussed normative justifications for copyright law script roles that copyright can play even when client fees are the only fuel for customized creativity. Under various transactional theories of copyright, copyright facilitates the author–client transaction that is the backbone of customized creative production.<sup>6</sup> It can ease authors’ concerns about disclosure of early-stage works by resolving Kenneth J. Arrow’s information paradox,<sup>7</sup> and it can back up the enforcement of the author–client contract. In addition, copyright can also play the role scripted by the theory of the firm by reducing the transaction costs of team-based creative production.<sup>8</sup> These alternative theories identify mechanisms—other

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6. See *infra* Subpart II.C.2.

7. Kenneth J. Arrow, *Economic Welfare and the Allocation of Resources for Invention*, in *THE RATE AND DIRECTION OF INVENTIVE ACTIVITY: ECONOMIC AND SOCIAL FACTORS* 609, 615 (Nat’l Bureau of Econ. Rsch. ed., 1962) (discussing a paradox in which the value of information is not known to a purchaser until after the purchaser has the information).

8. See *infra* Subpart II.C.3.

than the market buffer that animates the conventional theory—through which copyright augments incentives to create, even when customized creativity is funded entirely by upfront client fees.<sup>9</sup> To be clear, the argument here is not that the benefits of copyright in customized creativity outweigh the costs under these alternative theories. The argument is more fundamental: if we are going to justify copyright protection, then it is to these theories that we must turn to identify the benefits that can be entered into the ledger of copyright's utilitarian justification.

Of course, copyright in customized creative works is only irrelevant under the market-buffer theory when, according to the assumption noted above, authors rely exclusively on upfront client fees to cover their first-copy costs. The more that authors also rely on revenue from strangers who want back-end copies, the larger the opportunity for authors to use their copyrights as a buffer from market competition and the greater the continued relevance of the market-buffer theory in copyright's normative justification. In many copyright industries, authors rely on a combination of upfront client fees and revenue from the sale of back-end copies, and the relative importance of the two revenue streams will be difficult to predict in advance. However, the *customization effect* offers reason to believe that authors will be forced to rely exclusively on client fees more frequently than one might imagine. When markets tilt toward customization, demand among strangers for back-end copies of custom works frequently dries up, leaving authors no alternative but to recoup their full first-copy costs through client fees.

The "tilt" of a market reflects the mixture of commoditized and customized creativity that the consumers of a particular type of work desire. Some markets will tilt strongly toward commoditization. For example, novels are rarely written to satisfy the tastes and needs of individual clients. They are written for anonymous consumers in a market of some kind, even if the market is a niche one. Other markets will tilt in neither direction when consumers are close to indifferent as to the choice between customized and commoditized creativity and the two modes of creative production compete with each other in the market. The upper-middle slice of the market for single-family homes

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9. This insight clarifies why this Article relabels the conventional theory. The traditional incentive-to-create label sweeps too broadly. It identifies an end or goal, namely the provision of incentives for creative production. However, this goal can in fact be accomplished through several different mechanisms, including the mechanisms that animate theories that are alternatives to the conventional theory. Allowing one theory to bear the title of the incentive-to-create theory masks this reality and inaccurately implies that only the traditional theory views copyright as a means of augmenting incentives for creative production. The relabeling of the conventional theory as the market-buffer theory eliminates the confusion. Each theory can carry a title that refers to a distinct mechanism through which copyright can augment incentives to create.

fits this model, as architects providing custom designs and developers offering option-packed, commoditized designs vie for the same consumers.<sup>10</sup> Finally, a select few markets for copyrighted goods tilt strongly in the direction of customization. Consider three examples. Although they also sometimes produce stock plans, professional architects who design nonresidential buildings all labor to accommodate sites, programs—and aesthetic tastes specified by clients.<sup>11</sup> Event photographers, and wedding photographers in particular—provide a customized service when they create images of the particular events and objects that a client specifies, often in the manner that a client specifies.<sup>12</sup> Software companies produce commoditized programs like Windows or Photoshop, but they also participate in separate markets that customizes code to meet the specifications dictated by clients' unique functional demands and legacy systems.<sup>13</sup>

The customization effect arises only in this final set of markets that tilt strongly toward customization. One common reason markets tilt in this direction is that all consumers in such markets have intense and diverse preferences. These preferences increase the value that consumers derive from works tailored to their tastes and needs, so they lead consumers to forgo the price discount of commoditized creativity, become clients, and pay for customization services.<sup>14</sup> Yet, intense and diverse preferences have a second effect as well: they cause consumers to have weak demand, if any, for back-end copies of customized creative works. Back-end copies are no more likely to fit a consumer's tastes and needs than copies of commoditized creativity are, given that the works that inform back-end copies have, by definition, been tailored to someone else's tastes and needs. The customization effect is grounded on the fact that consumers are unlikely to make do with back-end copies of works customized for others when the market being saturated by customized creativity already demonstrates that they are unwilling to make do with off-the-shelf copies of commoditized works. That is, the customization effect lies in the correlation between two causal effects of intense and

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10. *See infra* notes 174–75.

11. *See infra* Subpart III.A.1.

12. Wedding photography is by far the most common genre of custom photography. GREG ROZA, CAREERS AS A PROFESSIONAL PHOTOGRAPHER 26–29 (2001).

13. PETER BUXMANN ET AL., THE SOFTWARE INDUSTRY: ECONOMIC PRINCIPLES, STRATEGIES, PERSPECTIVES 5–9, 14–17 (2013); *cf.* MARTIN CAMPBELL-KELLEY & WILLIAM ASPRAY, COMPUTER: A HISTORY OF THE INFORMATION MACHINE 173–76, 183 (2d ed. 2004) (detailing the history of customization within the software industry); MICHAEL A. CUSUMANO, THE BUSINESS OF SOFTWARE: WHAT EVERY MANAGER, PROGRAMMER, AND ENTREPRENEUR MUST KNOW TO THRIVE AND SURVIVE IN GOOD TIMES AND BAD 28–29 (2004) (discussing the mixture of customization and commoditization in the software industry).

14. *See infra* notes 80–90.

diverse preferences saturating a market; these preferences both cause markets to tilt strongly toward customization and weaken demand among strangers for back-end copies.

The customization effect has dramatic consequences for copyright's private value to its owner. It means that, in some markets that tilt strongly toward customization, there will not be any demand or market for back-end copies for which copyright can provide a buffer from competition. Copyright will become irrelevant under the market-buffer theory: it will be a right to control behavior in which strangers, including competitor firms vying for clients, have no desire to engage, even before copyright's deterrent effect enters the picture. In turn, authors will be forced to rely exclusively on upfront fees from clients to fund creative production.<sup>15</sup>

To reinforce the intuitive plausibility of the customization effect, consider again the markets that tilt strongly toward customization introduced above. Consumers who are in the market for nonresidential buildings likely have intense and diverse preferences because they have their own sites, programs, and budgets that need to be taken into account in the building's design.<sup>16</sup> It is not difficult to believe that these individuated requirements both tilt the market for nonresidential buildings strongly toward customization and dry up demand for back-end copies of building designs that have been tailored to other building owners' requirements. For example, museums as institutions don't want back-end copies of museum buildings designed for other institutions. Similarly, engaged couples in the market for wedding photography have intense and diverse preferences. Photographs have time-dependent, factual content: they document a particular couple's wedding. Who would make back-end copies of pictures of other couples' weddings rather than pay for front-end copies of pictures of their own wedding, regardless of how artfully the pictures of the other couples' weddings are staged?<sup>17</sup> Finally, companies with unique legacy systems and unusual needs for functionality have intense and diverse preferences.<sup>18</sup> These preferences mean that they cannot make do with either commoditized software or back-end copies of software that has been customized to another company's needs. Copyright will have little value as a tool for tamping down on strangers (including competitors) making back-end copies, because so few strangers will want to make those copies.

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15. The customization effect only deprives copyright of private value under the market-buffer theory if copyright scope is sufficiently thin. However, this proviso is not as significant as one might initially imagine. The same characteristics of creative works that create fertile ground for the customization effect to emerge also make copyright protection thin. *See infra* Subpart II.G.

16. *See infra* notes 160–65 and accompanying text.

17. *See infra* notes 116–45 and accompanying text.

18. *See infra* notes 114–46 and accompanying text.



To be clear, the customization effect is a rough correlation, not a law of nature. There are caveats: strangers will sometimes demand back-end copies of customized creative works even when markets tilt strongly toward customization. The biggest of these caveats is what this Article terms the *second-group caveat*. The customization effect is only expected to hold sway when intense and diverse preferences permeate the entire pool of potential copiers. For many works of authorship, this condition is difficult to satisfy. Different groups of potential copiers may value copies of the same work of authorship for different reasons, and those different groups are unlikely to all have the same intense and diverse preferences. Assume that a first group envisions a high-value use and has intense and diverse preferences, and that a second group envisions a low-value use and does not have intense and diverse preferences. A market for customized creativity with only the first group as market participants may tip strongly toward customization. Yet, the second group is waiting in the wings. Members of this second group would never consider paying for customization fees themselves, but they are interested in making back-end copies once a customized work has been created.

The second-group caveat leads to an expectation of some continued demand for back-end copies among strangers in the markets for nonresidential architecture and wedding photography. With respect to nonresidential architecture, the group of strangers waiting in the wings includes anyone who wants photographic copies of buildings. They do not participate in the market for building designs, so they do not stop the market for nonresidential architecture from tilting strongly toward customization. But once the customized building design exists, they are interested in making back-end copies of creative works customized for others. In wedding photography, the additional group of strangers would include independent florists who may want to use wedding photographs in their advertisements and aesthetes who appreciate the tonality and composition of wedding photographs. For these second groups who want copies of wedding photographs for some reason other than documenting their own weddings, either stock photographs or back-end copies of customized photographs will do just fine. (It is not clear that there is a second group waiting in the wings for back-end copies of custom software. What reason is there to want a copy of a software program other than making a given computer system execute given functions?)

This Article explores copyright, customized creativity, and the customization effect in two parts. Part II constructs the theory. It fleshes out the customization effect and its second-group caveat, examines how customization can alter the role that copyright plays in augmenting incentives to create, and explores why consumers develop the intense and diverse preferences for copies of copyrighted works that tilt markets strongly toward customization.

Part III looks at patterns of copyright use and value in the real-world markets for nonresidential architecture and event photography. While causal inferences are clearly not warranted, the patterns observed are the exact patterns that one would predict if the customization effect were in full sway. Litigation records show that architects who design nonresidential projects regularly sue their clients and departing employees for copyright infringement, but they rarely sue strangers.<sup>19</sup> Long-form, structured interviews reveal that freelance photographers (who largely produce custom photographs) perceive copyright to be a source of leverage in their negotiations with their clients, but they do not understand copyright to be a valuable tool for tamping down on unauthorized back-end copies made by strangers.<sup>20</sup>

Interestingly, neither market reveals evidence of the demand for back-end copies of customized works that the plausibility of the second-group caveat might lead one to expect. In nonresidential architecture, the answer to the puzzle is simple. Most architectural photography lies beyond the scope of architects' copyrights, so any demand for back-end photographic copies of architectural works does not show up in a study looking for litigation with strangers over back-end copies.<sup>21</sup> In contrast, photographers' perception that copyright is not a valuable tool for monetizing back-end copying by second-group strangers is most likely attributable to other forces—costly enforcement in particular—working in conjunction with the customization effect.<sup>22</sup>

## II. THEORY: COPYRIGHT AND CUSTOMIZED CREATIVITY

This Part develops a theory of copyright and customized creativity. Subpart II.A lays out the distinction between commoditized and customized creative production. Subpart II.B addresses how the producers of customized creativity may adopt a business model that is different from the one that the producers of commoditized creativity must use: they may rely on upfront fees from their clients for customization services and front-end copies. Subpart II.C considers the impact of this client-fee business model on copyright's normative justification. If authors rely exclusively on client fees rather than revenue from back-end copies by strangers, copyright becomes irrelevant under the market-buffer theory that is conventionally deployed to identify its private and social value. Copyright's only potential normative justification lies in

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19. See *infra* Subpart III.A. The litigation data comes from an original dataset that the author collected.

20. See *infra* Subpart III.B. The data on perceived copyright value among professional photographers is reported in Jessica Silbey et al., *Existential Copyright and Professional Photography*, 95 NOTRE DAME L. REV. 263, 269 (2019).

21. See *infra* notes 199–201 and accompanying text.

22. See *infra* Subpart III.C.

transactional theories of copyright and the theory of the firm. Subpart II.D identifies the customization effect. Some markets tilt strongly toward customization because consumers have intense and diverse preferences. In these markets, demand among strangers for back-end copies decreases, authors are more likely to rely exclusively on client fees for revenue, and copyright is pushed toward irrelevance under the market-buffer theory. Subpart II.E then notes a number of limitations on the customization effect, including the second-group caveat.

The next two Subparts hone in on unusual properties of the creative works at issue in markets that tilt strongly toward customization. More specifically, they consider the functional nature of architecture and software, along with the documentary quality of event photography. Subpart II.F argues that these characteristics help to explain why consumers in these markets have unusually intense preferences and thus why these markets are fertile ground for the customization effect to emerge. Subpart II.G notes that these characteristics make copyright protection unusually thin and that they therefore help to explain why the customization effect leads to copyright irrelevance under the market-buffer theory. Thin copyright protection means that the lack of demand for close back-end copies created by the customization effect is tantamount to a lack of demand for back-end copies that are actionable under copyright law.

Finally, Subpart II.H takes a step back and briefly situates the customization effect within scholarship addressing creativity without copyright and copyright's negative spaces. Many of the themes that run through this Article are echoes—some strong and some faint—of themes initially developed in this scholarship.

#### A. *Commoditized and Customized Creativity*

In service-sciences literature, customized and commoditized production lie at opposite poles of a spectrum.<sup>23</sup> Two variables distinguish these poles. The first is the degree to which a producer tailors a work to an individual consumer's tastes and needs.<sup>24</sup> Customized works are tailored in this manner. Commoditized works are not. They may be designed either to please an average market consumer or to express the producer's own sensibility and worldview.<sup>25</sup> The second variable is the extent to which producers and consumers interact.<sup>26</sup> The producers of customized works

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23. Deborah L. Kellogg & Winter Nie, *A Framework for Strategic Service Management*, 13 J. OPERATIONS MGMT. 323, 324–27 (1995); Lampel & Mintzberg, *supra* note 3, at 24–26; Schmenner, *supra* note 3, at 24–25.

24. Kellogg & Nie, *supra* note 23, at 326–27.

25. *Id.*; Schmenner, *supra* note 3, at 22–23; *see also* CHARLES W. LAMB ET AL., *MARKETING* 423 (11th ed. 2011).

26. In his seminal classification of service businesses, Professor Roger Schmenner developed a two-by-two matrix with labor intensity on the y axis and

interact extensively with the consumers to whose tastes and needs their works are tailored.<sup>27</sup> They must coax consumers to reveal those tastes and needs and then iteratively verify that their creative output is tailored to them as the work's details are developed.<sup>28</sup> In contrast, the producers of commoditized works often operate on a speculative basis with little to no contact with individual consumers, excepting perhaps an occasional focus group.<sup>29</sup>

The tailoring and interactivity implicated in customized creativity mean that the production processes for commoditized and customized works diverge in several interconnected ways. First, while commoditized goods can be sold entirely to anonymous consumers, customization transforms at least some consumers into known clients with whom producers usually have a contractual relationship.<sup>30</sup> Second, the authors of commoditized creativity often operate on a speculative basis, working at their own initiative without a particular client in mind and before any consumer actually puts money on the table. In contrast, the authors of customized creativity cannot work on a speculative basis.<sup>31</sup> Without an actual client, they do not know how to customize the work. Third, where commoditized creativity is widely viewed as a product, customized creativity is

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the degree of interaction and customization lumped together on the *x* axis. Schmenner, *supra* note 3, at 24–25. Others conceptualize customization and interactivity as separate dimensions. Kellogg & Nie, *supra* note 23, at 324–27.

27. Lampel & Mintzberg, *supra* note 3, at 26. Sometimes, authors also shape consumers' preferences.

28. Balázs Heidrich & Gábor Réthi, *Services and Service Management*, in SERVICE SCIENCE RESEARCH, STRATEGY AND INNOVATION: DYNAMIC KNOWLEDGE MANAGEMENT METHODS 1, 6 (N. Delener ed., 2012); Kellogg & Nie, *supra* note 23, at 325–26; Schmenner, *supra* note 3, at 22–23.

29. To avoid confusion, one kind of creativity that falls into what this Article treats as commoditized creativity is worth flagging: *auratic* creativity. Auratic creativity is driven by its author's sensibility, and it is often only intended to exist in a single, unique copy (or, perhaps, a limited number of copies). See generally WALTER BENJAMIN, *The Work of Art in the Age of Mechanical Reproduction*, in ILLUMINATIONS: ESSAYS AND REFLECTIONS 217, 221 (Hannah Arendt ed., Harry Zohn trans., Schocken Books 1969) (1955) (arguing that a work's aura derives from the connection between the work and its author and that mechanical reproduction undermines a work's aura). Auratic creativity may sometimes be referred to as custom in the sense that it was crafted by the author as a one-of-a-kind object. However, despite not being produced with an intent to have multiples exist in the world, this kind of work embodies commoditized creativity, not customized creativity, at least as this Article uses those terms. Auratic creativity need not be tailored to a consumer's tastes and needs; it does not require extensive interaction with a client to be produced.

30. Lampel & Mintzberg, *supra* note 3, at 25–26.

31. *Id.*; see also Kellogg & Nie, *supra* note 23, at 327 (noting that the inputs and feedback from consumer interaction are necessary to create one-of-a-kind services).

commonly viewed as a service, even if the client walks away with a tangible product.<sup>32</sup>

Consumers choosing between commoditized and customized creativity face a tradeoff. Price aside (including the opportunity cost of the time invested in the customization process), consumers prefer to become clients and obtain creative goods that are specifically tailored to their tastes and needs.<sup>33</sup> However, when price gets added into the mix, commoditized creativity becomes an attractive option.<sup>34</sup> Commoditization not only increases economies of scale, and thus reduces the marginal cost of producing goods, but it also spreads the author's first-copy costs out over a larger number of sales.<sup>35</sup> Although they might prefer customized creativity that better suits their tastes and needs, consumers usually make do with less expensive commoditized creativity.<sup>36</sup> That is, they generally need a good reason to forgo commoditized creativity, become clients, and pay for customization services.<sup>37</sup> We are rarely willing to invest the time and money needed for musicians to learn our tastes and, through iterative refinement and preference education, write songs that satisfy those tastes, even though we might derive considerable enjoyment from the resulting work. We read the books available to everyone online and in bookstores; we do not hire authors and coach them to write the books that we believe we would most enjoy reading.

Commoditized and customized creative production are idealized types at opposite poles of a spectrum, and a great deal of creative production mixes these processes. During the Modernist era in the first half of the twentieth century, nationally branded, mass-market goods rose to prominence, and commoditization was seen as the ideal mode of industrial production.<sup>38</sup> The prevailing ethos was to design a single product on a speculative basis for a large market and sell as many identical units as possible to anonymous consumers.<sup>39</sup> Producers achieved both economies of scale that reduced the marginal cost of producing each unit and product uniformity that bolstered their reputations for quality.<sup>40</sup> In more recent decades, however, scholars have noted a shift toward models of production that

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32. Lampel & Mintzberg, *supra* note 3, at 26.

33. Kellogg & Nie, *supra* note 23, at 335.

34. *Id.* at 331–32 (noting that the consumer expects a low price for commoditized goods because of their inherent limitations as generics).

35. *Id.*; see also Schmenner, *supra* note 3, at 25 (noting that higher degrees of customization can force companies to pass on costs to consumers).

36. *Cf.* Schmenner, *supra* note 3, at 30–31 (noting the pressure on businesses delivering customized services to reduce costs by increasing commoditization).

37. One good reason is taken up in more detail below. See *infra* notes 80–90 and accompanying text (discussing intense and diverse preferences).

38. Lampel & Mintzberg, *supra* note 3, at 22–23.

39. *Id.* at 23, 25.

40. Kellogg & Nie, *supra* note 23, at 335.

hybridize commoditization and customization into mass customization.<sup>41</sup> Technological advances have decreased both the production costs associated with differentiated product lines and the communication costs of collaborating with consumers in order to assess their tastes and needs.<sup>42</sup> Yet, commoditization still reduces costs, so the trend has not pulled much output to the bespoke, tailored production that is all the way at the customization pole of the spectrum. Segmented standardization, customized standardization, and tailored customization are all buzzwords describing how to add one or more dollops of customization to a commoditized production process.<sup>43</sup> With these hybrids, producers attempt to achieve the best of both worlds: enough customization to increase a product's value to a consumer, yet enough commoditization to preserve meaningful production efficiencies and first-copy cost distribution. These hybrids are important features of the landscape of contemporary creative production. However, this Article focuses on relatively pure forms of customized creative production, so it lumps these hybrids together as variants of commoditized creativity.

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41. See, e.g., Lampel & Mintzberg, *supra* note 3, at 21 (“Numerous books and articles have posited that we are witnessing the dawn of a new age of customization.”). The perception that companies can profit from customization persists today. See, e.g., CÉLINE FENECH & BEN PERKINS, DELOITTE, *THE DELOITTE CONSUMER REVIEW: MADE-TO-ORDER: THE RISE OF MASS PERSONALISATION 17* (2019) (“According to Deloitte’s research, one in three consumers who are interested in customization . . . felt that standard products or services do not meet their expectations.”); Liraz Margalit, *The Psychology Of Online Customization*, TECHCRUNCH (Nov. 11, 2014, 5:00 PM), <https://techcrunch.com/2014/11/11/the-rise-of-online-customization/> (“[T]he customized product is perceived more valuable than the standard one.”); Blake Morgan, *50 Stats Showing The Power Of Personalization*, FORBES (Feb. 18, 2020, 4:07 PM), <https://www.forbes.com/sites/blakemorgan/2020/02/18/50-stats-showing-the-power-of-personalization/#23e4279e2a94> (presenting statistics supporting “the power and potential of personalization”).

42. Lampel & Mintzberg, *supra* note 3, at 21, 28–29; see, e.g., Aviva Freudmann, *Customers Want Customization, and Companies Are Giving It to Them*, N.Y. TIMES (Mar. 18, 2020), <https://www.nytimes.com/2020/03/18/business/customization-personalized-products.html> (noting a “broader trend to offer customers personalized products” in footwear).

43. Lampel & Mintzberg, *supra* note 3, at 24–26; see also Schmenner, *supra* note 3, at 24–25 (discussing mass services and service shops); Yonggui Wang et al., “Tailoring” Customization Services: Effects of Customization Mode and Consumer Regulatory Focus, 24 J. SERV. MGMT. 82, 83 (2013) (exploring questions that are subsidiary to mass customization). But see Brian Squire et al., *Mass Customization: The Key to Customer Value?*, 15 PROD. PLAN. & CONTROL 459, 462 (2004) (arguing that some consumers are indifferent to customization because they place greater value on things like “brand name” and “delivery”).

B. *The Business Models of Customized Creativity*

Customized creativity has two different kinds of consumers and, correspondingly, two different kinds of copies. As noted above, the consumers who pay for customization services are *clients*. The one or more copies of a customized work that are made for clients are *front-end copies*.<sup>44</sup> Consumers who are not clients include both competitor producers and anonymous end-users, and they fall into a catchall group of *strangers*.<sup>45</sup> Strangers who reproduce or purchase copies acquire *back-end copies*. Back-end copies are copies of already existing works that have been tailored to someone else's tastes and needs.

Authors who produce customized creativity can tap two distinct revenue streams to recoup their first-copy costs. They can take advantage of an opportunity that the authors of commoditized creativity do not enjoy: they can collect fees from clients for customization services and front-end copies. They can also attempt to replicate as closely as possible the business model that authors who create commoditized creativity must use: they can sell or license multiple back-end copies of works to strangers, even though those works were customized to their clients' tastes and needs.

The existence of these two possible revenue streams makes it difficult to know in the abstract the exact business model that the authors of customized creativity will adopt. Authors may rely on upfront client fees, revenue from back-end copies, or some combination of the two. It is also difficult to say in the abstract which business model society should want the producers of customized creativity to adopt. If transactions are costless and the market works without much friction, perhaps the authors of customized creativity should tap both revenue sources. The additional revenue that authors obtain from back-end copies could reduce the upfront price that clients must pay for customized creativity and spur demand for yet more customized creativity. Or, if the market is less than perfectly efficient, obtaining revenue from both business models may

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44. Front-end copies come in two batches. There are the copies envisioned in the initial author-client agreement, and there are copies that exceed that agreement. Clients may need to reach a supplemental agreement with authors to lawfully make these latter copies. Although there may be a long delay between the authoring of customized creativity and the making of a copy, these latter copies are still front-end copies: they are customized to the tastes and needs of the party who makes the copy (or has the copy made).

45. This Article uses the term strangers in a narrower sense than contract scholarship does. In contract law, strangers are defined in opposition to contractual partners as entities who lack privity. This Article defines strangers in opposition to clients. Consumers who receive customization services can be clients before they sign contracts with authors for those services, meaning that some strangers in the contractual sense are clients, not strangers, in this Article's terminology.

lead authors to double-dip. They may recoup their first-copy costs in their entirety from clients and then get some bonus profits if they happen to notice strangers who are making back-end copies.<sup>46</sup>

While the way in which the business model of customized creativity will pan out is murky, the following Subparts examine the simple case in which authors rely largely or solely on upfront client fees to recoup their first-copy costs. Subpart II.C explores how such reliance radically shifts copyright's normative justification. Subpart II.D then addresses how the customization effect forces authors into this reliance when intense and diverse preferences tilt markets strongly toward customization.

### C. *Client Fees and Copyright's Normative Justification*

As a doctrinal matter, copyright protection does not change much when the focus shifts from commoditized to customized creativity. (The banality of this doctrinal assessment may help to explain why the implications of customization for copyright have, to date, gone unexamined.) If more customization means more design input from clients, then it could, in theory, mean that joint authorship becomes more common.<sup>47</sup> However, in practice, copyright law is stingy with its recognition of joint authorship. Clients can become joint authors only if they and the authors that they hire to provide customization services have a mutual intent to be joint authors.<sup>48</sup>

Yet, as an economic matter, customization in creative production may have a seismic impact on copyright if authors rely solely on client fees as their income stream. As explored in Subpart II.C.1, such reliance undermines the private and social benefits envisioned by copyright's dominant normative justification—what is commonly

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46. The possibility of double-dipping also exists for authors of commoditized creativity who have significant revenue streams other than the sale of copies such as government employees, authors with patrons, and fine artists who sell auratic works. See *infra* notes 95–98 and accompanying text.

47. 17 U.S.C. § 101 (defining a “joint work” as “work prepared by two or more authors with the intention that their contributions be merged into inseparable or interdependent parts of a unitary whole”).

48. See *Aalmuhammed v. Lee*, 202 F.3d 1227, 1233–34 (9th Cir. 2000) (noting that the Second and Seventh Circuits have held that a person claiming the joint work “must prove that both parties intended each other to be joint authors”); cf. Shyamkrishna Balganes, *Unplanned Coauthorship*, 100 VA. L. REV. 1683, 1739–41 (2014) (proposing that the mutual intent requirement should reflect the existence of a “collaborative impulse”). Authors—and architects in particular—who provide customization services rarely intend to embrace their clients as joint authors. See, e.g., *Sari v. Am.’s Home Place, Inc.*, 129 F. Supp. 3d 317, 327–28 (E.D. Va. 2015) (holding in part that the contributions that a client made to a custom architectural design did not make the client a joint author); *Watkins v. Chesapeake Custom Homes, L.L.C.*, 330 F. Supp. 2d 563, 574 (D. Md. 2004) (same). However, explicitly collaborative design methodologies may well be the exception to the rule.



known as the *incentive-to-create* theory, but which here is called the *market-buffer* theory.<sup>49</sup> Copyright simply cannot play the role that this conventional theory scripts for it. There is no public goods or collective action problem for copyright to resolve, and authors have no opportunity to use their copyrights to buffer themselves from market competition. However, the irrelevance of copyright under the market-buffer theory does not mean that copyright is entirely without value. To the contrary, copyright can still foreseeably increase authors' profits, and thus augment incentives to produce creative goods, by playing the role scripted by two of copyright's less commonly considered normative justifications. Subpart II.C.2 reveals copyright's continued—and, in fact, heightened—value under various transactional theories of copyright. Subpart II.C.3 considers how copyright can still increase the efficiency of team-based production of creative works under the theory of the firm.

In gross, these explorations of various copyright theories reveal that we need to think more carefully about copyright's role in the production of customized creativity when authors rely largely on client fees to recoup their first-copy costs. Whether copyright's benefits outweigh its costs under these circumstances is beyond the scope of this Article. But what can be said is that it is only copyright's transactional theories and the theory of the firm that identify the benefits that are needed for copyright to have a utilitarian justification.

### 1. *The Market-Buffer Theory*

The market-buffer theory is the overwhelmingly dominant normative justification of copyright.<sup>50</sup> It views copyright as a solution to a market failure caused by a public goods or collective action problem.<sup>51</sup> Copyright generates a private tax that forces multiple strangers who derive value from authors' works to compensate authors for some small fraction of their first-copy costs and thus help to provision the works. Without copyright, a competitive market drives the price of copies toward the marginal cost of production, and authors have difficulty charging the price premium necessary for them to recoup their first-copy costs. Prospective authors may

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49. This renaming of the conventional theory shifts the focus from copyright's end goal to its mechanism for achieving that goal. This shift in focus, in turn, is helpful on a semantic level in order to recognize that theories of copyright that are commonly juxtaposed with the conventional theory also identify mechanisms through which copyright generates incentives to create. See *supra* note 9.

50. See, e.g., LANDES & POSNER, *supra* note 4, at 37–41; Balganes, *supra* note 4, at 1576–77; Lemley, *supra* note 4, at 1031; Lunney, *supra* note 4, at 485–86, 492–93.

51. See JAMES BOYLE, THE PUBLIC DOMAIN: ENCLOSING THE COMMONS OF THE MIND 1–9 (2008).

therefore elect not to become actual authors, and society may suffer from a sparse offering of creative works.<sup>52</sup> Copyright firms up authors' expectations of recouping their first-copy costs. It enables authors to tamp down on copying by free riders, to buffer themselves from a competitive market, and to charge a supracompetitive price for copies.<sup>53</sup>

If the authors of customized creativity rely entirely on client fees for customization services or the sale of front-end copies to recoup their first-copy costs, copyright fades into irrelevance under the market-buffer theory. There is no market failure; there is no public goods or collective action among a group of uncoordinated consumers to be solved. A single party—the client to whose tastes and needs the work is tailored—foots the full bill for producing the work, as client fees will cover artists' first-copy costs in their entirety.<sup>54</sup> Furthermore, authors do not use their copyrights to buffer themselves from market competition, so copyright does not provide authors with any private value.

Copyright's irrelevance under the market-buffer theory when authors rely exclusively on upfront client fees to recoup their first-copy costs does not mean that copyright inflicts a net harm on society. The point is not that copyright's access costs outweigh its incentive

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52. Money, of course, isn't everything. Nonmonetary incentives such as personal satisfaction and status drive some creative production. *See, e.g.,* Rebecca Tushnet, *Economies of Desire: Fair Use and Marketplace Assumptions*, 51 WM. & MARY L. REV. 513, 522–27 (2009) (exploring compulsion and love as sources of creativity).

53. Copyright's ability to provide an incentive to commercialize or disseminate already created works is sometimes cited as an alternative to the incentive-to-create theory. *Golan v. Holder*, 565 U.S. 302, 325–27 (2012); *Eldred v. Ashcroft*, 537 U.S. 186, 260 (2003) (Breyer, J., dissenting). As used in this Article, the market-buffer theory encompasses both the incentive-to-create and incentive-to-commercialize theories. Both theories view copyright as a means of creating a buffer in the market for copies that helps to pay for first-copy costs. The incentive-to-create theory focuses on the earlier costs of generating original expression that are borne uniquely by an author. The incentive-to-commercialize theory focuses on the later costs of transforming a copyrighted work into a marketable product that are also borne uniquely by the first commercializer.

54. When the customization effect is what leads the authors of customized creativity to rely entirely on upfront client fees to pay for first-copy costs, the situation is yet more dramatic. The client derives the full benefit of the work, so it makes perfect sense to have the client pay for the first-copy costs. No one, apart from the client for whom the work was tailored, wants copies, so there is nobody else who values the work and who should or even can be taxed to contribute to the author's first-copy costs. This is true even if demand for back-end copies approaches, but never reaches, zero. Authors cannot rely on royalties or damages from unpredictable and rare back-end copies by strangers, so they cannot lower their front-end customization fees.

benefits.<sup>55</sup> Rather, the point is that copyright is neutral: it generates neither incentive benefits nor access costs. When copyright is not being used to buffer authors from market competition, there is nothing to weigh on either side of the scale.

## 2. *Transactional Theories*

Transactional justifications of intellectual property focus on the facilitation of consensual, bilateral exchanges of information between market actors.<sup>56</sup> Transactional theories rarely make their way out of the shadow cast by the market-buffer theory to get much attention as alternative normative justifications for copyright law.<sup>57</sup>

When the authors of customized creativity recoup their first-copy costs entirely through upfront fees, however, transactional theories become copyright's most persuasive normative justifications. Clients still do demand front-end copies, so there is work for copyright to do to facilitate the author–client transaction that is the backbone of customized creativity. More specifically, copyright can shape the author–client transaction in two ways. First, it can promote precontractual information disclosure by overcoming Arrow's information paradox.<sup>58</sup> Second, it can provide authors with what

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55. The incentive/access tradeoff is the metric for assessing copyright's social value under the market-buffer theory. LANDES & POSNER, *supra* note 4, at 20–21.

56. Robert P. Merges, *A Transactional View of Property Rights*, 20 BERKELEY TECH. L.J. 1477, 1479 (2005). For examples of scholarship on transactional theories of intellectual property, see James J. Anton & Dennis A. Yao, *The Sale of Ideas: Strategic Disclosure, Property Rights, and Contracting*, 69 REV. ECON. STUD. 513, 514 (2002); Jonathan M. Barnett, *Intellectual Property as a Law of Organization*, 84 S. CAL. L. REV. 785, 787 (2011); Michael J. Burstein, *Exchanging Information Without Intellectual Property*, 91 TEX. L. REV. 227, 231 (2012); Nancy T. Gallini & Ralph A. Winter, *Licensing in the Theory of Innovation*, 16 RAND J. ECON. 237, 237 (1985); Paul J. Heald, *A Transaction Costs Theory of Patent Law*, 66 OHIO. ST. L.J. 473, 473 (2005); F. Scott Kieff, *Property Rights and Property Rules for Commercializing Inventions*, 85 MINN. L. REV. 697, 703 (2001); Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J.L. & ECON. 265, 277–78 (1977); Stephen Yelderian, *Coordination-Focused Patent Policy*, 96 B.U. L. REV. 1565, 1566 (2016). This Subpart focuses on inter-firm transactions and defers consideration of how copyright can facilitate intra-firm transactions to the following Subpart. *See infra* Subpart II.C.3 (discussing the theory of the firm).

57. Most discussions of transactional theories focus on patents rather than copyrights. *See* Merges, *supra* note 56, at 1479. For examples of the infrequent consideration of transactional theories specifically in the context of copyright scholarship, see Wendy J. Gordon, *The Core of Copyright: Authors, Not Publishers*, 52 HOUS. L. REV. 613, 613 (2014); Guy A. Rub, *Copyright Survives: Rethinking the Copyright–Contract Conflict*, 103 VA. L. REV. 1141, 1141 (2017).

58. Arrow, *supra* note 7, at 615; *see* Merges, *supra* note 56, at 1489–1504. The information paradox is also known as a double trust dilemma. ROBERT D. COOTER & HANS-BERND SCHÄFER, *SOLOMON'S KNOT: HOW LAW CAN END THE POVERTY OF NATIONS* 27 (2012).

Professor Robert Merges refers to as enforcement flexibility when clients use creative works in ways that exceed the use rights specified in the author–client contracts.<sup>59</sup> Copyright can solidify authors' expectations of getting paid what they are due through both of these mechanisms, thereby augmenting incentives for customized creative production.<sup>60</sup>

Arrow's information paradox reveals that parties who want to sell information often find themselves between a rock and a hard place.<sup>61</sup> Purchasers do not want to agree to pay sellers for information until they have enough access to the information to assess its value. Yet, sellers do not want to grant purchasers access to the information until after the purchasers have agreed to pay. Once sellers disclose the information, purchasers possess it and have no reason to pay. What are information sellers to do: not disclose and forgo the transaction, or disclose and risk not getting paid?

The authors of customized creativity face a variant of Arrow's information paradox when potential clients shop around for a customization service provider. The customization process is often highly interactive.<sup>62</sup> Interactivity, in turn, requires authors to disclose early-stage versions of works. These disclosures increase the risk that clients will appropriate authors' works without full payment and take them to the authors' competitors for further development and realization.<sup>63</sup>

Copyright can help the authors of customized creativity overcome Arrow's information paradox.<sup>64</sup> When copyright impedes clients' ability to commercially exploit works that have been customized to their tastes and needs without the authors' permission, authors become more comfortable with disclosing their works.<sup>65</sup> In turn, the

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59. See Merges, *supra* note 56, at 1504–13.

60. In addition, copyright law also aids transactions over information by defining the scope of the information resource at issue. Without reference to copyright doctrine, it would be difficult to know when a transactional partner has produced an imperfect copy that violates an author's contract rights.

61. Arrow, *supra* note 7, at 615. Arrow's information paradox does not arise in all commercial transactions over information. Burstein, *supra* note 56, at 247–58.

62. See *supra* notes 26–29 and accompanying text.

63. Nondisclosure agreements and other contractual arrangements may reduce the risk of appropriation, but intellectual property is usually needed to fill the gaps. Burstein, *supra* note 56, at 263; Merges, *supra* note 56, at 1489–95; Yelderman, *supra* note 56, at 1579.

64. For an example of copyright's ability to facilitate disclosure in the author–client transaction, see *infra* notes 203–08 and accompanying text (discussing copyright suits between architects and clients involving custom architecture).

65. There is, however, a limiting principle. Copyright only makes authors more comfortable with disclosure when commercial exploitation requires infringement. Cf. Burstein, *supra* note 56, at 259–60 (making this point with

authors of customized creative works are willing to invest in creating more customized works when they know in advance that disclosures are less likely to lead to appropriation without compensation.<sup>66</sup>

Copyright can also support consensual transactions by increasing authors' enforcement options in relation to a world in which parties are bound only by contract.<sup>67</sup> Copyright infringement may result in a larger damages award or a longer statute of limitations for an author than breach of contract does.<sup>68</sup> It may allow an author to prevail in a suit where the alleged infringer is related to—yet distinct from—the client and privity between the author and the infringer is uncertain.<sup>69</sup> By putting the authors in a position in which they are more likely to be paid a larger amount for their customization services, copyright can augment incentives for creative production by providing authors with enforcement flexibility, even when the authors of customized creativity rely entirely on upfront payments from clients to offset their first-copy costs.<sup>70</sup>

### 3. *The Theory of the Firm*

The theory of the firm addresses issues that arise when the concerted effort of a group of people is the most effective way to

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respect to patents). For example, copyright is notoriously ineffective at preventing studios from appropriating treatments or highly general pitches for movies and TV shows. Julie A. Byren, *When the Million-Dollar Pitch Doesn't Pay a Dime: Why Idea Submission Claims Should Survive Copyright Preemption*, 28 BERKELEY TECH. L.J. 1037, 1067–70 (2013). Much of the value of treatments lies in the ideas that they convey, and the lack of protection for ideas under the idea/expression dichotomy means that copyright cannot resolve Arrow's information paradox. *Id.* at 1040–42.

66. The market-buffer theory is commonly viewed as providing ex ante incentives to incur the first-copy costs of creating works, and disclosure-oriented transactional theories are commonly viewed as doing something different, namely facilitating disclosure ex post after works have already been generated. Mark A. Lemley, *Ex Ante versus Ex Post Justifications for Intellectual Property*, 71 U. CHI. L. REV. 129, 129–30 (2004). However, the role that copyright plays in facilitating disclosure during the development of customized works muddies this clean ex ante/ex post distinction. *Cf. id.* at 130 n.4 (noting that the ex ante/ex post distinction is muddy in a different way). Copyright can augment incentives for creativity even when it plays the role scripted by the transactional theories. Copyright's ability to facilitate disclosure under the transactional theories increases ex ante incentives for information production when the transaction at issue is an agreement to generate new information and the facilitated disclosure is only a rough, early-stage version of the final deliverable.

67. Merges, *supra* note 56, at 1505.

68. *Id.* at 1506, 1509–10.

69. *Id.* at 1507–08.

70. For an example of copyright's ability to provide enforcement flexibility with respect to the author–client contract, see *infra* notes 208–10 and accompanying text (discussing copyright suits between architects and clients involving custom architecture).

produce goods and services. The theory originated with Ronald Coase's famous proposition that interactions among people may produce fewer transaction costs if those individuals are all part of a hierarchical management structure, such as a firm, rather than atomistic individuals negotiating contractual relationships in a market.<sup>71</sup> Only one thread of the now sprawling body of scholarship addressing the transaction costs of firm organization and behavior is relevant here: intellectual property's ability to reduce the costs of intra-firm transactions.<sup>72</sup> Some creative works are complex enough to be most efficiently produced by a team operating within a firm.<sup>73</sup> One transaction cost that arises in the production of creative works by firms is diversion of firm resources for personal gain, which is a kind of employee conduct that is obviously not in the firm's best interests.<sup>74</sup> Intellectual property—more specifically, intellectual property that is owned by the firm and that encompasses employees' work product when employees are acting within the scope of their employment—offers a low-cost technique for reducing employees' ability to divert firm resources for themselves.<sup>75</sup> For example, it can prevent departing employees from “stealing” clients away from their (former) employers.<sup>76</sup> The work-for-hire doctrine in copyright law achieves exactly the desired firm ownership of creative works

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71. R. H. Coase, *The Nature of the Firm*, 4 *ECONOMICA* 386, 390–91 (1937).

72. Dan L. Burk & Brett H. McDonnell, *The Goldilocks Hypothesis: Balancing Intellectual Property Rights at the Boundary of the Firm*, 2007 *U. ILL. L. REV.* 575, 591–600; Dan L. Burk, *Intellectual Property and the Firm*, 71 *U. CHI. L. REV.* 3, 11–15 (2004). Distinct strands of the theory of the firm address how intellectual property can reduce the transaction costs in inter-firm transactions. ALFRED D. CHANDLER, JR., *THE VISIBLE HAND: THE MANAGERIAL REVOLUTION IN AMERICAN BUSINESS* 6–7 (1977) (discussing how intellectual property can reduce the pressure to incorporate more information production within firms); Burk & McDonnell, *supra*, at 583–90; Burk, *supra*, at 8–11. The disclosure-oriented transactional theories of copyright addressed in Subpart II.C.2 are examples of how intellectual property can reduce the costs of inter-firm transactions.

73. This is especially true in light of the time-intensive client interactivity that customization often demands. *See supra* notes 26–29 and accompanying text.

74. Burk & McDonnell, *supra* note 72, at 579.

75. Addressing all possible forms of diversion in employment agreements is plausible in theory but costly in practice, due to the near inevitability of incomplete contracts. *Id.* at 581.

76. *Id.* at 577. Copyright also reduces the need for wasteful expenditures on compartmentalizing information among different teams within a firm in order to limit employees' ability to engage in appropriation. Burk, *supra* note 72, at 8–9; Heald, *supra* note 56, at 487–89; Robert P. Merges, *The Law and Economics of Employee Inventions*, 13 *HARV. J.L. & TECH.* 1, 2–3 (1999). At the same time, limits on copyright scope ensure that firms do not obtain excessive leverage over employees. By limiting firm ownership to tangible expression, copyright ensures that employees can use their professional skill sets and unprotected ideas in the service of new employers. Burk & McDonnell, *supra* note 72, at 594, 609–10.

produced by employees.<sup>77</sup> In sum, copyright augments incentives to generate customized creativity by reducing the cost of team-based production, even when authors do not monetize back-end copies.<sup>78</sup>

#### D. *The Customization Effect*

The transformation in the role that copyright plays in augmenting incentives for customized creativity discussed in the previous Subpart is most radical when authors rely exclusively on upfront client fees to recoup their first-copy costs. The customization effect identifies one situation in which authors will collect all of their revenue from client fees—not because they merely elect to but because they have no choice. That is, it explains why sometimes strangers do not want back-end copies of customized creativity, regardless of the price discount, and the market required to monetize back-end copies dries up.

Markets for creative goods have different tilts or ratios of commoditized and customized creativity. Some markets, such as the market for novels, will tilt strongly toward commoditization. Novelists almost never write fiction tailored to the tastes and needs of individual clients. Some markets will tilt strongly in the other direction because commoditized creativity simply will not do. Nonresidential architecture, wedding photography, and custom software are prime examples. Finally, in the middle, there are markets without much of any tilt at all. Here, the price–value tradeoff makes many consumers roughly indifferent about whether they get commoditized or customized creativity, and the two modes of creative production compete with each other in the market. High(ish)-end fashion, where pricy off-the-rack brands compete with bespoke tailors, illustrates the dynamic.<sup>79</sup>

The customization effect is a descriptive theory of demand in markets that tilt strongly toward customization. In these markets, demand for back-end copies of customized works among strangers may approach zero. The key is that the very same consumer preferences both make customized creativity more attractive in comparison to commoditized creativity, causing markets to tilt strongly toward customization, and eliminate demand for back-end copies of customized creativity among strangers.

As noted above, consumers generally need a good reason to forgo commoditized creativity, become clients, and pay for customization

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77. 17 U.S.C. § 201(b); *see also id.* § 101 (defining work made for hire).

78. For an example of copyright's ability to make employee appropriation of a firm's intellectual assets more difficult, *see infra* notes 221–24 and accompanying text (discussing departing-employee suits involving architectural works).

79. *See* Antonio Centeno, *The Difference Between Bespoke and Off-The-Rack Menswear*, BUS. INSIDER (Dec. 4, 2012, 12:06 PM), <https://www.businessinsider.com/bespoke-vs-off-the-rack-menswear-2012-12>.

services.<sup>80</sup> This good reason is most commonly that consumers have intense and diverse preferences for the goods at issue. Preference intensity and preference diversity are two distinct concepts. High preference intensity is a property of an individual consumer, and it means that consumers experience larger welfare losses when they are forced to settle for goods that differ from their ideal goods by some fixed amount.<sup>81</sup> High preference diversity is a property of a group of consumers. Within the group, preferences are varied, and different consumers have different variants of goods as their ideal goods.<sup>82</sup>

Together, high preference intensity and diversity make markets tilt toward customization. They increase *value in diversity*: consumers are more willing to bear the first-copy costs of customization because the departure from consumers' ideal goods required to make do with commoditized creativity produces larger welfare losses.<sup>83</sup> Greater preference diversity means that there is a larger divergence between consumers' ideal goods and the goods that are available as commodities.<sup>84</sup> Greater preference intensity means that this divergence creates a larger welfare loss for the consumers. As consumers' preferences move toward the theoretical pole of infinite intensity and maximum diversity, there is a point at which authors will no longer produce commoditized creativity. There are not enough consumers who want any particular consensus, average work to generate the economies of scale needed for commoditized creativity to

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80. See *supra* notes 33–37 and accompanying text.

81. That is, the elasticity of substitution between variants of a good is smaller and any given departure from a consumer's ideal work constitutes a less perfect substitute. Kelvin Lancaster, *The Economics of Product Variety: A Survey*, 9 MKTG. SCI. 189, 193–95 (1990). A consumer's ideal work or most preferred specification is the preferred good if all possible variants are available. *Id.* at 197.

82. *Id.* at 190. The usual explanation for diverse preferences is that an independence motivation drives preference diversity. Consumers want works with specific properties, and their tastes and needs are therefore largely independent of other consumers' purchasing decisions (although never entirely so due to, e.g., network effects). Kelly Tepper Tian et al., *Consumers' Need for Uniqueness: Scale Development and Validation*, 28 J. CONSUMER RSCH. 50, 50 (2001). In some situations, however, a counterconformity motivation could also drive preference intensity: consumers could desire unique copies of works precisely because other consumers do not possess them. *Id.* at 50; cf. CHARLES R. SNYDER & HAROLD L. FROMKIN, UNIQUENESS: THE HUMAN PURSUIT OF DIFFERENCE 31–38 (1980) (discussing uniqueness theory in social psychology that posits most people desire distinctiveness and seek to establish distinctiveness in part through the acquisition of goods).

83. Value in diversity is the gain from consumers having their preferences more perfectly satisfied as the range of differentiated products expands. PAUL KRUGMAN ET AL., ESSENTIALS OF ECONOMICS 252–53 (2d ed. 2010).

84. See FENECH & PERKINS, *supra* note 41, at 17 (noting that approximately a third of consumers who wanted personalized products reasoned that standard products did “not offer exactly what [they] want[ed]”).



cover the author's first-copy costs. At this point, the market has tilted fully away from commoditization and toward customization.

The notion that intense and diverse preferences drive markets away from commoditized works and toward customized works is a central thesis of economic models of product differentiation.<sup>85</sup> These models seek insight into either the optimal product diversity to maximize a firm's private gain or, relatedly, the optimal product diversity to maximize social welfare.<sup>86</sup> As a product line grows more varied, the models highlight the balance between greater value in diversity on the demand side and diminished economies of scale on the production side.<sup>87</sup> Given this balance, the models usually point toward a finite number of distinct variants within a product line as the optimum.<sup>88</sup> A market that tilts strongly toward customization is simply a limit condition or the long tail of the bell curve: when the value in diversity becomes large enough, it trumps the loss of economies of scale.<sup>89</sup> Authors choose not to produce a diversified line of commoditized, creative works before the point of sale but rather to provide on-demand customization services.

Intense and diverse preferences also reduce demand for back-end copies of customized creativity among strangers. Greater preference intensity means that consumers face a larger welfare loss when they consider making do with a work that has been customized to someone else's tastes and needs (just as they do when they consider making do with a commoditized work). Greater preference diversity means that there is a larger divergence between a consumer's ideal work and the off-the-shelf custom works that have been tailored to others' tastes

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85. This thesis exists in both of the basic approaches to modeling product differentiation, namely Chamberlin's monopolistic competition and Hotelling's locational competition (adapted to accommodate product space rather than geographic space). EDWARD CHAMBERLIN, *THE THEORY OF MONOPOLISTIC COMPETITION* 56–117 (1933); Harold Hotelling, *Stability in Competition*, 39 *ECON. J.* 41, 54 (1929). For a review of the lineages of both approaches, see Lancaster, *supra* note 81, at 192–201. For a discussion of the two models in the context of copyright economics, see Oren Bracha & Talha Syed, *Beyond the Incentive–Access Paradigm? Product Differentiation & Copyright Revisited*, 92 *TEX. L. REV.* 1841, 1859–66 (2014); Christopher S. Yoo, *Copyright and Product Differentiation*, 79 *N.Y.U. L. REV.* 212, 236–46 (2004).

86. See Lancaster, *supra* note 81, at 192–94.

87. See Joseph Farrell & Garth Saloner, *Standardization and Variety*, 20 *ECON. LETTERS* 71, 71 (1986); Kelvin Lancaster, *Socially Optimal Product Differentiation*, 65 *AM. ECON. REV.* 567, 574–75 (1975); Lancaster, *supra* note 81, at 192; cf. Christopher S. Yoo, *Beyond Network Neutrality*, 19 *HARV. J.L. & TECH.* 1, 35–36 (2005) (using a standardization/variety tradeoff to assess the welfare gain (or loss) from changing the number of incompatible networks).

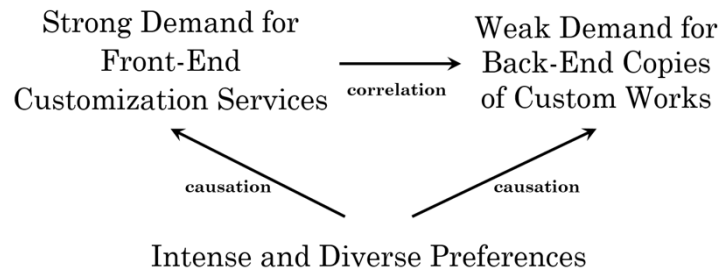
88. See Lancaster, *supra* note 81, at 192.

89. Lancaster, *supra* note 87, at 573–74.

and needs (just as there is a larger divergence between a consumer's ideal work and a commoditized work).<sup>90</sup>

The customization effect combines these two insights. Strong demand for front-end copies among clients and weak demand for back-end copies among strangers often go hand in hand. As illustrated in Figure 1, they both have intense and diverse preferences as a joint cause.<sup>91</sup> As a market for customization grows more robust because consumers have a high willingness to pay for front-end customization services, demand for back-end copies of already created customized works shrinks. The very preferences that drive consumers to become clients and bear the fees required to obtain customization services also drive them away from copies of the custom works that authors have already created for others. Strangers are unlikely to settle for back-end copies of works that have been customized for others when the market being saturated by customization services already demonstrates that they are unwilling to settle for off-the-shelf copies of commoditized works.<sup>92</sup>

FIGURE 1: THE EFFECTS OF INTENSE AND DIVERSE PREFERENCES



90. Greater preference diversity increases the average divergence between a consumer's ideal work and both commoditized works and works customized for others, but it is not clear in the abstract whether the increase is greater with respect to one or the other.

91. Joint cause can explain correlation. ROBERT M. MARTIN, *SCIENTIFIC THINKING* 257 (1997).

92. The difficulty of copying services, and customized services in particular, is sometimes noted as a reason why services do not need extensive intellectual property protection under the incentive-to-create justification. Pamela Samuelson & Jason Schultz, "Clues" for Determining Whether Business and Service Innovations Are Unpatentable Abstract Ideas, 15 *LEWIS & CLARK L. REV.* 109, 124 (2011); cf. MICHAEL POLANYI, *THE TACIT DIMENSION* 30–31 (1966) (noting that doing a job well frequently involves context-specific knowledge that is difficult to codify in text or copy from goods marketed to the public). The customization effect makes a different point. The focus is not on the supply side (the difficulty of making copies) but on the demand side (the lack of willingness to pay for copies). See *infra* notes 259–64 (contrasting supply-based and demand-based explanations for copyright irrelevance).

In turn, the authors of customized creativity must rely exclusively on client fees charged for customization services and sales of front-end copies to clients to cover their first-copy costs. The point is not simply that authors can rely on upfront fees and sales if they want to. Rather, the point is that they must: there is no market for back-end copies in which copyright can buffer them from competition.<sup>93</sup> The right to control reproduction by strangers becomes something akin to a right to prevent people from walking down a hot road for a mile on their hands. It exists as law on the books, but it is irrelevant as law in practice. There is no opportunity to exercise the right because there is no motivation to perform the precluded action, even before copyright's deterrent effect enters the picture.

The customization effect reflects intuitive propositions about demand among strangers in markets dominated by customized services. Consider again the three markets that tilt toward customization referenced above in the introduction, namely nonresidential architecture, custom photography, and custom software.<sup>94</sup> How many museum boards planning the construction of a new building want a copy of a museum building that was tailored to fit on a different institution's site, house a different institution's collection, and accommodate the number of visitors anticipated by a different institution? How many shoe companies want photographs of another company's shoes, or even of last year's models of their own shoes, for their newest advertising campaign? How many companies with legacy software and hardware, as well as unique requirements in terms of user functionality, want programs tailored to the needs of another company? In all of these examples, the customization effect can explain why the answer is none or, at least, very few: the intense and diverse preferences that cause many markets to tilt strongly toward customization mean that strangers have only weak demand, at best, for back-end copies of customized creativity.

For another perspective on the customization effect, compare the possible business models of the authors of customized creativity whose works are subject to the customization effect, on the one hand, and government workers and authors who have patrons, on the other

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93. The link between the customization effect and copyright irrelevance under the market-buffer theory involves an assumption about copyright scope: copyright cannot be thick enough to allow the copyright in a first custom work by a first author for a first client to encompass a front-end copy of a second custom work by a second author for a second client. However, thick copyrights that turn front-end copies of customized works tailored to the tastes and needs of later clients into actionable copies of works tailored to the tastes and needs of earlier clients turn out to be less common than one might expect. The same attributes of creative works that create fertile ground for the emergence of the customization effect also make copyright protection unusually thin. *See infra* Subpart II.G.

94. *See supra* notes 11–13 and accompanying text.

hand. In one way, the two groups of authors are in similar positions. If a single party promises to pay the first-copy costs up front before authors incur those costs, then there is no need for supracompetitive pricing in a market for multiple copies on the back end to augment incentives for creative production.<sup>95</sup> However, in another way, the authors of customized creativity are in a notably different position when the customization effect holds sway. The lack of demand for back-end copies means that they must subsist on client fees alone. If copyright law permitted it, government workers and authors with patrons could seek to double-dip by both accepting the upfront payment and profiting from back-end copies.<sup>96</sup>

In a similar vein, high-end artists who create auratic works<sup>97</sup> and who can charge a price premium for the original copy may not need revenue sales of multiple merchandizing copies, like the posters on sale at museums, in order to recoup their first-copy costs.<sup>98</sup> Yet, unlike the authors of customized creativity who face the customization effect, the authors of auratic works can use their copyrights to enforce a buffer from competition in the market for merchandizing copies.

### *E. Caveats*

There are a number of caveats on the customization effect—that is, on the correlation between markets tilting strongly toward customization and the absence of demand among strangers for even nearly identical back-end copies—that are important to note. Demand for back-end copies is unlikely to ever actually reach zero in real-world markets. Consumers rarely have infinitely intense and maximally diverse preferences, so some modicum of demand for back-end copies of customized creativity may persist regardless of how strongly a market tilts toward customization. In addition, the customization effect will not emerge at all if markets tilt strongly

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95. LANDES & POSNER, *supra* note 4, at 330; Neil Weinstock Netanel, *Copyright and a Democratic Civil Society*, 106 *YALE L.J.* 283, 346, 352–53 (1996). Embracing state subsidy or elite patronage as the dominant incentive mechanism may solve the incentive problem, but it leads to structural concerns about the kind of art and commentary that authors will produce. *Id.* at 352–62.

96. *See supra* note 46 and accompanying text (discussing double-dipping by the authors of customized creativity when the market does not tilt strongly toward customization). The lack of copyright protection for government works prevents double-dipping with respect to government works, 17 U.S.C. § 105, but artists with patrons can pursue this strategy.

97. *See supra* note 29 and accompanying text (defining auratic creativity).

98. LANDES & POSNER, *supra* note 4, at 254–57 (arguing that “[t]he overall case for copyright protection of works of art is weaker than that for copyright protection of most other expressive works” because “[t]he main source of the artist’s income . . . typically comes from the sale of the [first copy of] the work . . . rather than from the sale of [successive] copies.”); Amy Adler, *Why Art Does Not Need Copyright*, 86 *GEO. WASH. L. Rev.* 313, 340 (2018).

toward customization for reasons other than intense and diverse preferences. For example, authors may fail to recognize pockets of consumers with homogeneous or weak preferences. If there is a viable but unexploited business opportunity for commoditized creativity, there is no reason to expect diminished demand among strangers for back-end copies of customized works.<sup>99</sup> Alternatively, a market may tilt toward customization due to a desire to control the flow of information rather than the existence of intense and diverse preferences.<sup>100</sup>

The most significant caveat on the customization effect, however, is likely the *second-group caveat*. The customization effect will only emerge in its starkest form when the entire pool of potential copiers exhibits intense and diverse preferences. When these preferences saturate all possible copiers, everyone who might elect to make back-end copies chooses instead to pay for customization services and front-end copies. However, intense and diverse preferences will not be so widely felt when different groups of consumers benefit from copies of copyrighted works for different reasons. A first group of consumers may value a copy of a copyrighted work for a first reason. Within this group, preferences may be both intense and diverse, the market may tilt strongly toward customization, and the customization effect may hold sway. However, there may also be a second group of consumers that values a copyrighted work for a second reason. The preferences within this second group need not be intense or diverse at all; these consumers may be happy with copies of commoditized works. Members of this second group may wait in the wings, allow a market to tilt strongly toward customization, and then come onstage to make back-end copies only once the customized creativity has been produced. In this second-group caveat to the creativity effect, a market may appear to have tilted fully toward customization, but the full tilt only exists when members of the second group do not get counted as market participants.<sup>101</sup>

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99. Even if consumers' preferences are well known, the lack of meaningful economies of scale means that producers will not provide commoditized creativity for any small pockets of consumers who would prefer it.

100. For example, celebrities hire event photographers to take pictures of their weddings. However, due to their celebrity, preferences for celebrity wedding photographs are not diverse: many people want the same photographs. Celebrities do not need to pay the full first-copy costs of customization to get photographs of their own weddings; given the opportunity, the paparazzi would gladly produce celebrity wedding photographs as commoditized creativity. Rather, celebrities hire their own wedding photographers to be able to control how they appear in the press. *Cf. Monge v. Maya Mags., Inc.*, 688 F.3d 1164, 1184 (9th Cir. 2012) (describing a celebrity couple who acquired the copyright in paparazzi photographs to suppress publication).

101. The important point here is that the opportunity for monetization of back-end copies exists. Whether the copyright regime works more efficiently when authors monetize back-end copies by second-group members, or whether

For examples of scenarios in which the second-group caveat seems intuitively plausible, consider yet again the markets for nonresidential architecture and custom photography.<sup>102</sup> Assume that the customization effect holds sway among all participants in the market for new museum buildings. That is, assume that all museum boards have intense and diverse preferences and that no museum board wants a new museum that is a back-end copy of a museum building designed for a different institution. Even if this is true, there is a pool of strangers who desire copies not to house art collections but for entirely different reasons: they want posters or photographs of museum buildings to remind them of their visit or to derive visual pleasure from the image. These strangers would never consider commissioning an architect to design a building in order to acquire a good poster, but they are waiting in the wings to make back-end copies once a museum institution has ponied up the money to have a customized architectural work designed and constructed.<sup>103</sup> Similarly, assume that all shoe companies have intense and diverse preferences for their marketing campaigns and that no shoe company wants their new campaign to employ back-end copies of custom photographs. Even if this is true, there is a pool of strangers who desire copies not to market shoes but to show their allegiance as consumers to the shoe company or illustrate a short story with a shoe-obsessed protagonist. These strangers may never consider hiring a photographer to produce custom photographs, but they are waiting in the wings to make back-end copies.<sup>104</sup>

*F. Why Intense and Diverse Preferences?*

What makes markets for some creative works tilt strongly toward customization and allows the customization effect to emerge? The answer lies in why intense and diverse preferences saturate the markets for these creative works. Taking the markets for nonresidential architecture, event photography, and custom software as exemplars, two factors seem to play key roles. First, consumers are likely to have unusually intense preferences for these works because the works are highly functional or documentary in nature.

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revenue from back-end copies amounts to double-dipping, is an open question. *See supra* note 46 and accompanying text.

102. A second-group caveat for software is less plausible. *See infra* note 147 and accompanying text.

103. The presence of this second group does not undermine copyright's irrelevance under the market-buffer theory in the market for designs for nonresidential buildings because architectural photography usually lies beyond the scope of an architect's copyright. *See infra* notes 199–201 and accompanying text.

104. For further discussion of the second-group caveat in the context of event photography, see *infra* notes 252–58 and accompanying text.

Second, consumers' preferences for these functional and documentary works are individuated, leading to high preference diversity.

### 1. *The Functionality of Architecture*

In general, preferences for the functional aspects of authorial works are more intense than preferences for the works' purely aesthetic properties. Aesthetic preferences are soft. You may be willing to listen to music that is moodier than your ideal work or hang a painting in your living room that is more figurative than your ideal work, especially when your alternative is to pay for the first-copy costs of customization. In contrast, functional preferences can be hard. You are less likely to tolerate a flower vase that does not hold water, even if it only leaks a little bit. Works of authorship that have functional tasks to perform but that perform those tasks poorly or even merely suboptimally often just won't do.<sup>105</sup>

Buildings are functional objects. Architecture "does" a number of things in a physical sense. Buildings not only provide shelter by resisting gravity and the elements, but their dispositions of space facilitate certain behaviors while impeding others.<sup>106</sup> The functionality of buildings leads to intense preferences. A building that does not satisfy a client's program or fit on a client's site just won't do.

The functionality of buildings makes architectural works unusual among copyrightable works of authorship. The core of copyrightable subject matter consists roughly of the kind of creative, original expression that artists are understood to produce,<sup>107</sup> and functional works usually lie beyond copyright's reach.<sup>108</sup> Copyright

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105. Consumers prefer products that exceed their functional criteria but not their aesthetic criteria over products that exceed their aesthetic criteria but not their functional criteria. Ravindra Chitturi et al., *Form Versus Function: How the Intensities of Specific Emotions Evoked in Functional Versus Hedonic Trade-Offs Mediate Product Preferences*, 44 J. MKTG. RES. 702, 704–06, 708–10 (2007) (discussing "the principle of precedence . . . according to which consumers should seek to fulfill functional cutoffs before seeking to fulfill hedonic cutoffs"); see also Theodore J. Noseworthy & Remi Trudel, *Looks Interesting, but What Does It Do? Evaluation of Incongruent Product Form Depends on Positioning*, 48 J. MKTG. RES. 1008, 1017 (2011) (citing "existing research that suggests that utilitarianism precedes hedonism until functional expectations are met"). However, consumers prefer superior aesthetics over superior functionality once products satisfy both their functional and aesthetic criteria. Chitturi et al., *supra* note 105, at 710 (discussing "hedonic dominance . . . when a desired cutoff is met on both [functional and aesthetic] attribute types").

106. Kevin Emerson Collins, *Patent Law's Authorship Screen*, 84 U. CHI. L. REV. 1603, 1646–48 (2017).

107. *Burrow-Giles Lithographic Co. v. Sarony*, 111 U.S. 53, 57–59 (1884).

108. The exclusion of functional works prevents copyrights from becoming back-door patents that upset the balance of public and private rights established

doctrine employs *functionality screens* to achieve the goal of denying protection to—i.e., screening out—the functional aspects of otherwise protectable creative works.<sup>109</sup> When the Architectural Works Copyright Protection Act (“AWCPA”) extended copyright protection to constructed buildings, however, it adopted an unusually lax, *sui generis* functionality screen for architectural works.<sup>110</sup> Functional features of architectural works can be protected even when similarly functional features of other kinds of works of authorship cannot be protected.<sup>111</sup> The features of architectural works thus fall into a sweet spot for preference intensity among copyrighted works: they are often functional enough to provoke intense preferences yet, because of a lax and subject-matter specific functionality screen, they are not excluded from copyright protection altogether.<sup>112</sup>

The preference intensity generated by a building’s functionality does not, by itself, tilt a market strongly toward customization. Can openers, staplers, and blenders are highly functional artifacts of industrial design, yet they are also highly commoditized.<sup>113</sup> Consumers may have intense preferences for can openers that actually open cans, but their preferences are not diverse because all consumers desire the same can-opening functionality. For a market to tilt strongly toward customization, each consumer must have different functional needs. As explored in more detail below, the market for architectural designs for nonresidential projects, but not

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by patent law for functional innovation. See *Baker v. Selden*, 101 U.S. 99, 102 (1879).

109. Christopher Buccafusco & Mark A. Lemley, *Functionality Screens*, 103 VA. L. REV. 1293, 1295, 1311 (2017); Mark P. McKenna & Christopher Jon Sprigman, *What’s in and What’s out: How IP’s Boundary Rules Shape Innovation*, 30 HARV. J.L. & TECH. 491, 501 n.33 (2017).

110. The copyrightability of the functional aspects of most three-dimensional objects is governed by the rather strict separability test of the useful articles doctrine. 17 U.S.C. § 101. *But cf.* *Star Athletica, L.L.C., v. Varsity Brands, Inc.*, 137 S. Ct. 1002, 1008–16 (2017) (interpreting the useful articles doctrine in a manner that may lead to a laxer functionality screen). In contrast, the legislative history of the AWCPA suggests that architectural copyright only denies protection to the features of architectural works that are required in order to compete in a market for goods that perform a function. H.R. REP. NO. 101-735, at 20–21 (1990). The existence of alternative ways of accomplishing a function thus weigh in favor of copyrightability for architectural works, but not for other works that are three-dimensional, functional objects.

111. Buccafusco & Lemley, *supra* note 109, at 1340.

112. There likely are a number of markets involving individuated needs for functional goods in which the customization effect holds sway, such as the market for replacement parts in legacy mechanical devices. The raw functionality of goods such as machine parts, however, means that copyright protection for such goods will usually not exist.

113. See, e.g., Andra Picincu, *Examples of Commoditization*, CHRON (Nov. 6, 2020), <https://smallbusiness.chron.com/examples-commoditization-36973.html>.



for single-family homes, has exactly this individuation of preferences for a building's functional properties.<sup>114</sup>

## 2. *The Functionality of Software*

In terms of the degree of functionality that a subject matter may possess and yet still be eligible for copyright protection, custom computer software is perhaps the closest parallel to nonresidential architecture among all copyrightable works of authorship. Software is clearly functional: it is a text that causes a machine to behave in a particular manner.<sup>115</sup> Software is protected by copyright today only because of an unusually lax, *sui generis* functionality screen.<sup>116</sup>

Also paralleling the example of nonresidential architecture, some software markets are full of consumers with individuated functional needs.<sup>117</sup> Consumers pay for customization services because they need software that behaves in a unique way, whether that is to meet certain functional specifications or interface with legacy software and hardware systems.<sup>118</sup>

## 3. *The Documentary Quality of Photography*

Photography is not functional in the conventional copyright sense of the term. It does not “do” something either physical, like architecture does, or computational, like software does. However, it has another property that, while not as unusual as architecture's functionality, nonetheless distinguishes it from the norm of copyrightable subject matter. Photography has a documentary quality.<sup>119</sup> It performs the “function” of recording the existence of facts, informing human readers/observers about those facts, and triggering memories, whether fond or painful, of past events.<sup>120</sup>

114. *See infra* Subpart III.A.1.

115. Pamela Samuelson et al., *A Manifesto Concerning the Legal Protection of Computer Programs*, 94 COLUM. L. REV. 2308, 2316–17 (1994).

116. *Id.* at 2347–55.

117. BUXMANN ET AL., *supra* note 13, at 5–9, 14–17.

118. *Id.*; *cf.* Business News Daily Staff, *What Is Custom Software Development?*, BUS. NEWS DAILY (Dec. 6, 2019), <https://www.businessnewsdaily.com/5175-custom-software-development.html> (explaining that consumers may prefer custom software despite “fundamentally similar” needs because “such software is designed to specifically address these users’ needs better than more traditional and widespread off-the-shelf software can”).

119. Justin Hughes, *The Photographer's Copyright—Photograph as Art, Photograph as Database*, 25 HARV. L.J. & TECH. 339, 345–51 (2012).

120. The discussions of architecture in Subpart II.F.1 and software in Subpart II.F.2 used the concept of functionality as it is conventionally used in copyright law, namely to refer to the type of innovation that patents, not copyrights, are supposed to protect. Under a broader conception of functionality that departs from copyright convention, photographs might be said to have documentary functionality: they serve the “function” of documenting facts, objects, and events. *Cf.* Kevin Emerson Collins, *Semiotics 101: Taking the Printed Matter Doctrine*

The documentary nature of photography heightens preference intensity, much like the functional nature of architecture and computer software does. Works of authorship that play a documentary role but get their facts wrong often just won't do. Even if you tolerate a choppy writing style in a biography, you are unlikely to tolerate fiction dressed up as history.<sup>121</sup> Documentary films, some photographs, and factual literary works such as scientific reports, newspaper articles, and phone books all possess the factuality that increases preference intensity.

Preference intensity only triggers the customization effect, however, when preferences are individuated and thus highly diverse. Many of the photographs produced by freelance event photographers are for clients with considerable preference individuation. For example, consider again the work of event photographers who document weddings. The clients who hire photographers to produce wedding photography have intense preferences due to the photographs' documentary nature. The pictures must record the wedding ceremony of the photographer's client. The deeply personal and emotional attachment to the people who participate in the wedding means that a picture of someone else's wedding just will not do. The reason why pictures of someone else's wedding will not do is not because your wedding pictures have the most exquisite staging or lighting but because your wedding pictures record the occurrence of your wedding.

#### G. *Copyright Irrelevance and Thin Copyright*

The customization effect arises when intense and diverse preferences both tilt markets strongly toward customization and minimize demand among strangers for back-end copies of custom works. In turn, this lack of demand means that authors have no choice but to rely exclusively on client fees for income and that copyright is irrelevant under the market-buffer theory.

However, this latter link—the one that connects the absence of demand for back-end copies of customized works and the selective irrelevance of copyright—is subject to an important proviso. The customization effect only reduces demand for close or nearly identical back-end copies. Standing alone, this does not necessarily imply an absence of demand for *actionable* copies. Copyright law uses a substantial similarity test for infringement that identifies many

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*Seriously*, 85 IND. L. REV. 1379, 1380–83 (2010) (framing material embodiments of signs that convey informational content to human readers as technologies that perform functional work, albeit not the kind of functional work that entitles an inventor to patent protection).

121. This is provided, of course, that you are actually looking for history. The contemporary world of social media is diluting preferences for accurate facts. Truthiness and deep fakes abound.

imperfect copies as copyright violations.<sup>122</sup> There may well be demand for imperfect back-end copies of creative works, even when the customization effect is in full swing. A front-end copy of a second custom work by a second author for a second client may be a loose, yet still infringing, back-end copy of a first custom work by a first author for a first client made at an earlier point in time.

Consider simple examples involving nonresidential architecture and custom photography. When an architect designs a museum, there may be little demand for an exact copy of the building, but other museum owners may want to copy its overall disposition of spaces. For example, they may also want galleries consisting of a stack of vertically connected rooms rather than a line of horizontally connected rooms. Similarly, brides and grooms may want to copy the creative staging in someone else's wedding photographs—for example, the wedding party standing in a heart shape and captured from above—without making a reprographic copy of the actual image.<sup>123</sup>

Given the persistence of demand for imperfect copies even when the customization effect is in full force, copyright's relevance under the market-buffer theory hinges on whether copyright protection for the works at issue is thick or thin. Copyright scope is thinner when there is more unprotectable material in a work, and it is thicker when there is less unprotectable material in a work.<sup>124</sup> In turn, nearly identical copying is required to infringe a thin copyright, whereas looser copying may be enough to infringe a thick copyright.<sup>125</sup> If it is thick, copyright may not be irrelevant when the customization effect emerges. The copyright in a first custom work may well be broad enough to encompass front-end copies of a second custom work even though that second work is tailored to the tastes and needs of a different client. However, if it is thin, copyright is more likely to become irrelevant. The copyright in a work tailored to the tastes and needs of one client is unlikely to be expansive enough to encompass a distinct work tailored to the tastes and needs of another client, despite the existence of some similarity on a higher level of generality.

Perhaps surprisingly, thin copyright turns out to be the norm in markets for creative goods that tilt strongly toward customization. The very properties of copyrightable works that were identified in Subpart II.F as creating intense preferences, and thus fertile ground

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122. MELVILLE B. NIMMER & DAVID NIMMER, 4 NIMMER ON COPYRIGHT § 13.03 (2019).

123. Both of these examples involve loose copies with comprehensive, nonliteral similarity to the copyrighted work. *Id.* § 13.03(A)(1). Loose copies may alternatively exhibit fragmented literal similarity, *id.* § 13.03(A)(2), which may be particularly important in limiting the customization effect in markets for custom computer software.

124. *Id.* § 13.03(A)(4).

125. *Id.*

for the emergence of the customization effect, also lead to unusually thin copyright protection. The functional nature of architecture and software means that there is a significant amount of unprotected material in the copyrighted works and that only relatively close copies infringe authors' copyrights.<sup>126</sup> The factual nature of the images captured achieves the same ends for event photography.<sup>127</sup> These connections between intense preferences and thin copyright protection increase the probability that the customization effect will lead to a lack of demand for back-end copies among strangers that are actionable under copyright law and, in turn, to the irrelevance of copyright under the market-buffer theory.

#### H. *Relationship to Creativity Without Copyright*

Copyright scholarship has traditionally focused on copyright's positive spaces in which copyright is relevant because it impacts creative production (whether that impact is for better or worse). More recent scholarship expands the scholarly focus to examine copyright's negative spaces in which copyright does not impact creative production.<sup>128</sup> One theme running through this scholarship is a focus on context-specific mechanisms, other than copyright, that make authors willing to bear their first-copy costs.<sup>129</sup> These incentives for

126. *Zalewski v. Cicero Builder Dev., Inc.*, 754 F.3d 95, 105 (2d Cir. 2014); *Comput. Assocs. Int'l, Inc., v. Altai, Inc.*, 982 F.2d 693, 707–10 (2d Cir. 1992).

127. The photographs taken by freelance photographers are almost always copyrightable works of authorship. See *The Essential Guide to Photography and Copyright Law*, FORMAT (Jan. 8, 2016), <https://format.com/magazine/resources/photography/photography-copyright-law-guide>. *But cf.* Hughes, *supra* note 119, at 361–75 (discussing unprotected photography). However, copyright protection does not extend to facts themselves. *Feist Publ'ns, Inc., v. Rural Tel. Serv. Co.*, 499 U.S. 340, 357 (1991). The factual nature of photographs thus leads to thin protection. Hughes, *supra* note 119, at 375–80.

128. CREATIVITY WITHOUT LAW: CHALLENGING THE ASSUMPTIONS OF INTELLECTUAL PROPERTY (Kate Darling & Aaron Perzanowski eds., 2017); Jacob Loshin, *Secrets Revealed: Protecting Magicians' Intellectual Property Without Law*, in LAW & MAGIC: A COLLECTION OF ESSAYS 123, 123–24, 139–41 (Christine A. Corcos ed. 2010); KAL RAUSTIALA & CHRISTOPHER SPRIGMAN, THE KNOCKOFF ECONOMY: HOW IMITATION SPARKS INNOVATION 170 (2012); Emmanuelle Fauchart & Eric von Hippel, *Norms-Based Intellectual Property Systems: The Case of French Chefs*, 19 ORG. SCI. 187, 196 (2008); Dotan Oliar & Christopher Sprigman, *There's No Free Laugh (Anymore): The Emergence of Intellectual Property Norms and the Transformation of Stand-Up Comedy*, 94 VA. L. REV. 1787, 1789–90 (2008); Perzanowski, *supra* note 2, at 513–14, 590–91; Kal Raustiala & Christopher Sprigman, *The Piracy Paradox: Innovation and Intellectual Property in Fashion Design*, 92 VA. L. REV. 1687, 1762, 1769–72, 1775–77 (2006); Elizabeth L. Rosenblatt, *A Theory of IP's Negative Space*, 34 COLUM. J.L. & ARTS 317, 318 (2011).

129. Aaron Perzanowski & Kate Darling, *Introduction*, in CREATIVITY WITHOUT LAW, *supra* note 128, at 1, 2.

creativity other than copyright counter the common argument that ubiquitous, strong copyright is the best policy to ensure that creativity proceeds apace.<sup>130</sup>

In some ways, the customization effect echoes the themes of scholarship on creativity without copyright and copyright's negative spaces. It reveals yet another context-specific mechanism, other than the mechanism that animates the dominant market-buffer theory of copyright, which enables authors to recoup their first-copy costs. The lack of demand among strangers for back-end copies forces clients to promise to foot the full bill for customization services. However, markets in which the customization effect holds sway are unlike other copyright-negative spaces that have been studied for three reasons. Strikingly, all three work to disrupt the binary of copyright's positive and negative spaces.<sup>131</sup>

First, the customization effect expands the conditions under which copyright is deemed to be irrelevant to creative production in a copyright-negative space. In most of copyright's negative spaces, copyright is clearly irrelevant because it is legally absent: there is no effective protection for the creative output as a doctrinal matter. Recipes, jokes, and magic tricks are unprotectable ideas under copyright's idea/expression dichotomy;<sup>132</sup> the cut of clothing and food as it is plated in a restaurant are unprotected useful articles because their aesthetic and functional features cannot be separated.<sup>133</sup> In

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130. *Id.*

131. Although the labels positive and negative suggest a clean distinction—copyright either impacts creative production in a field or it does not—the binary was already under some pressure before this Article introduced the customization effect. The point at which copyright protection transitions from present to absent is sometimes difficult to pinpoint with certainty. *See infra* note 132. In addition, creative production in a field in which copyright is absent may be aided by the copyright protection available for complementary goods or the protection granted in the field by other types of intellectual property. Rochelle Cooper Dreyfuss, *Does IP Need IP? Accommodating Intellectual Production Outside the Intellectual Property Paradigm*, 31 CARDOZO L. REV. 1437, 1448–52 (2010).

132. Whatever protection exists for the literary expression in which a recipe or joke is cast, or the onstage theatrics that accompany a magic trick, is not enough to prevent the recipe, joke, or trick itself from being copied. *Publ'ns Int'l, Ltd., v. Meredith Corp.*, 88 F.3d 473, 479–81 (7th Cir. 1996) (recipes); F. Jay Dougherty, *Now You Own It, Now You Don't: Copyright and Related Rights in Magic Productions and Performances*, in *LAW & MAGIC: A COLLECTION OF ESSAYS* 103–19 (Christine A. Corcos ed. 2010) (magic tricks); Oliar & Sprigman, *supra* note 128, at 1789–90, 1825–28 (jokes). *But cf.* Christopher J. Buccafusco, *On the Legal Consequences of Sauces: Should Thomas Keller's Recipes Be Per Se Copyrightable?*, 24 CARDOZO ARTS & ENT. L.J. 1121, 1149–56 (2007) (arguing that recipes should not be copyrightable).

133. *Star Athletica, L.L.C., v. Varsity Brands, Inc.*, 137 S. Ct. 1002, 1016 (2017) (cheerleader uniforms); RAUSTIALA & SPRIGMAN, *supra* note 128, at 67–68 (built food).

contrast, the customization effect identifies a space in which copyright protection is irrelevant in a softer way: it exists as a doctrinal matter but is meaningless as an economic matter. Professor Aaron Perzanowski's work on copyright and copying norms in custom tattoo artistry is a leading example of this species of copyright irrelevance,<sup>134</sup> and this Article's examination of the customization effect follows in its wake.<sup>135</sup>

Second, the customization effect identifies a novel cause for copyright irrelevance.<sup>136</sup> Most studies of copyright-negative spaces have focused on norms that constrain copying behavior and, more specifically, norms that create a supply-side restriction on producers' incentives to provide copies to consumers.<sup>137</sup> The fear of shaming and loss of status among accomplished French chefs tamps down on recipe copying, even though diners may desire more widely available recipes at lower prices.<sup>138</sup> Comedians, magicians, and Professor Perzanowski's tattoo artists all employ social norms against literal appropriation as an alternative to copyright for quelling rampant free-riding behavior.<sup>139</sup> In contrast, the customization effect posits a demand-side restriction on consumers' willingness to pay for copies. For commoditized creativity, a lack of demand among strangers is a

134. The historically countercultural status of tattoos has led tattooers to celebrate their status as outsiders and harbor a deep mistrust of the legal establishment as a means of resolving disputes. Perzanowski, *supra* note 2, at 567–75. Custom tattooers developed a set of professional norms that frown on close copies, and these norms lead to a lack of copying over which to sue. *Id.* at 567–75.

135. Another interesting parallel between Professor Perzanowski's tattoo artists and the authors of customized creativity exists in the distinction that this Article draws between commoditized and customized creativity and the distinction between custom tattoo designs and pre-made tattoo designs (or flash). *Id.* at 521–24. However, the parallel here is not exact. It is not clear that Professor Perzanowski is using the term custom in the way that it is used in this Article to mean tailored to the tastes and needs of the person who is being tattooed rather than to mean a one-of-a-kind creation by an artist. *See supra* note 2. In addition, on the other side of the distinction, the commoditized works considered in this Article are usually original enough to receive thin copyrights, but flash is so unoriginal that Professor Perzanowski assumes that it is entirely unprotected. Perzanowski, *supra* note 2, at 557–60.

136. For a broader, systematic categorization of distinct explanations for copyright irrelevance, see *infra* Subpart III.C.

137. *See generally* ROBERT C. ELLICKSON, ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES (1991) (offering a pioneering foray into regulation by social norms).

138. Fauchart & von Hippel, *supra* note 128, at 192–96.

139. *See* Loshin, *supra* note 128, at 137–39 (magicians); Oliar & Sprigman, *supra* note 128, at 1812–25, 1831–34 (comedians); Perzanowski, *supra* note 2, at 513–14 (tattoo artists). The dynamic in fashion is different in that rampant free riding exists, but it may actually benefit the copied authors by speeding up the fashion cycle. Raustiala & Sprigman, *supra* note 128, at 1717–34.

sign that a work is unsuccessful (at least as measured by willingness to pay), and copyright is unconcerned with ensuring that authors recoup their first-copy costs for unsuccessful works.<sup>140</sup> The customization effect means that this litmus test for an unsuccessful work does not carry over to customized creativity. Clients may prize customized works, and yet strangers may not want copies.

Third, the customization effect does not support categorical statements about the relevance of copyright for creative production in any particular work of authorship. For any given work, the customization effect makes copyright irrelevant in markets that tilt strongly toward customization, yet relevant in mixed markets. It makes copyright irrelevant with respect to copying by strangers, yet relevant with respect to copying by clients and employees. Relatedly, it makes copyright irrelevant under copyright's dominant market-buffer theory, yet relevant under less commonly discussed theories. In sum, the conditional nature of copyright's irrelevance when the customization effect emerges places customized creativity into a largely unmapped space nestled in between copyright's positive and negative spaces.

### III. PRACTICE: COPYRIGHT IN ACTUAL MARKETS

Even assuming that the customization effect is internally coherent and intuitively plausible, the theory developed in Part II does not demonstrate that the customization effect actually impacts creative production today. Perhaps the caveats overwhelm the rule.

This Part examines the role that copyright plays—and, just as importantly, does not play—in two contemporary markets that tilt strongly toward customization: nonresidential architecture and custom photography.<sup>141</sup> Although causation clearly cannot be proven, the data in both fields are consistent with what one would predict if the customization effect were to hold sway. They suggest that authors do not rely on revenue from demand for back-end copies among strangers and that copyright plays the roles scripted by the transactional theories of copyright and the theory of the firm, not the dominant market-buffer theory. Subpart III.A examines litigation records for infringement suits involving AWCPA copyrights on nonresidential architecture. These records show that architects who design nonresidential projects regularly sue their clients for making

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140. Copyright damages determine author profits by summing individual demand functions. Daniel J. Hemel & Lisa Larrimore Ouellette, *Beyond the Patents-Prizes Debate*, 92 TEX. L. REV. 303, 327–28 (2013). Copyright might be concerned about authors recouping their first-copy costs for unsuccessful works in an indirect way: one could enable authors on average to recoup more than their first-copy costs on their successful works to help offset their first-copy costs on unsuccessful works.

141. Custom software receives more cursory treatment. *See infra* notes 145–47 and accompanying text.

front-end copies and periodically sue departing employees for appropriating firm assets, but that they sue strangers for making back-end copies only once in a blue moon.<sup>142</sup> Subpart III.B turns to a recent report of qualitative interviews with freelance photographers that probe why photographers value their copyrights. These interviews show that photographers understand their copyrights to be important in their upfront negotiations with their clients but not as tools for monetizing back-end copies by strangers.

Curiously, neither descriptive analysis shows the signs of a second-group caveat on the customization effect, even though the notion that the second-group caveat could exist in both markets is strikingly plausible.<sup>143</sup> The answer to this puzzle is likely different in each industry. In architecture, architectural photography generally lies beyond the scope of architects' copyrights in their architectural works, making architects' copyrights irrelevant under the market-buffer theory despite the presence of demand for back-end photographic copies of architectural works.<sup>144</sup> In event photography, in contrast, one might reasonably expect that the second-group caveat would lead some photographers to view their copyrights as valuable tools for monetizing back-end copying by strangers. The fact that many photographers do not perceive any such value is most likely explained by causal forces—and the costs of copyright enforcement, in particular—being layered on top of the customization effect. Subpart III.C therefore outlines a taxonomy of alternative explanations for the patterns of copyright use and value observed in nonresidential architecture and freelance photography, respectively. The more plausible these alternative explanations, the weaker the argument that the customization effect is the principal cause of the patterns observed.

Finally, a brief note on custom software is in order, given that it does not receive independent treatment herein. The notion that the customization effect holds sway in the market for custom software is plausible. Who wants a nearly exact copy of a software program that has been tailored to the needs of a different company with a different legacy system?<sup>145</sup> In fact, in his famous article on the economics of

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142. In other work, the author argues that limitations on the scope of architectural copyright in the pre-AWCPA regime may be socially beneficial because they restrict the rights granted to custom architects to only the rights that they need to use their copyrights in the ways expected under the transactional theories. Kevin Emerson Collins, *The Hidden Transactional Wisdom of Media Discrimination in Pre-AWCPA Copyright*, 97 WASH. U. L. REV. 693, 696–97, 739–47 (2020).

143. See *supra* notes 102–04 and accompanying text.

144. See *infra* notes 252–58 and accompanying text.

145. The modularity of software could lead to some demand for back-end copies of discrete chunks of code from the overall program. See *supra* note 122



copyright protection, Justice Breyer assumes an absence of demand for back-end copies of custom software and thus assumes the existence of what this Article calls the customization effect.<sup>146</sup> An examination of the customization effect in custom software would be particularly interesting because, of the three markets used as examples in this Article, it is the one in which the second-group caveat might be expected to be the least important. Very few people, if any, want software for any reason other than to enjoy the functionality that it creates in a computer. Aside from an odd computer programmer or two who may appreciate the elegance of code, who wants software for any reason other than to make a computer perform a set of functions?<sup>147</sup>

#### A. *Nonresidential Architecture*

Subpart III.A.1 establishes that the market for nonresidential projects tilts strongly toward customization, but the market for single-family homes tilts toward commoditization. This distinction provides something akin to both an experimental group, where one would expect to see the customization effect, and a control group, where the customization effect should not arise. Subpart III.A.2 reveals a pattern of copyright use—and, more critically, nonuse—in litigation that is consistent with these expectations. Subpart III.A.3 addresses the ramifications of this pattern of copyright use for copyright's normative justification.

##### 1. *A Tale of Two Industries*

Architectural design in the United States is a tale of two industries. Customized and commoditized creativity predominate for architectural works that accommodate different programs.<sup>148</sup> With the exception of commercial trade dress, nonresidential buildings are designed largely by professional architects who undertake a highly customized design process.<sup>149</sup> In contrast, single-family homes are

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and accompanying text (discussing imperfect copies that are actionable due to fragmented literal similarity).

146. See Stephen Breyer, *The Uneasy Case for Copyright: A Study of Copyright in Books, Photocopies, and Computer Programs*, 84 HARV. L. REV. 281, 345–46 (1970); cf. Pamela Samuelson, *The Uneasy Case for Software Copyrights Revisited*, 79 GEO. WASH. L. REV. 1746, 1756–65 (2011) (noting that the software market as a whole tilted more strongly toward customization at the time when Breyer wrote his article).

147. Samuelson et al., *supra* note 115, at 2317 (“No one would want to buy a program that did not behave, i.e., that did nothing, no matter how elegant the source code ‘prose’ expressing that nothing.”).

148. A program is the set of behaviors or activities that a building is designed to accommodate. See JAMES F. O’GORMAN, *ABC OF ARCHITECTURE* 1–2 (1998).

149. See generally AM. INST. OF ARCHITECTS, *THE ARCHITECT’S HANDBOOK OF PROFESSIONAL PRACTICE* (R.L. Hayes ed., 15th ed. 2014) [hereinafter AIA

most commonly built using commoditized stock plans, and their design is usually driven by developers and merchant builders, with architects leaving only a light footprint, if any at all, on their design.<sup>150</sup>

Building design at the core of the architectural profession is a canonical example of customized creative production.<sup>151</sup> When architects write books about what it means to be an architect, they describe the provision of architectural design as a customized service to individual, known clients.<sup>152</sup> The handbook produced by the American Institute of Architects (“AIA”) takes for granted that architects provide customized services to known clients.<sup>153</sup> The process through which professional architects generate building designs has the two hallmarks of customization, namely client interactivity and output that is tailored to clients’ tastes and needs.<sup>154</sup> Architects regularly communicate with their clients.<sup>155</sup> Their design process is divided into a series of phases, and they present their projects as works-in-progress for client input, revision, and approval, at least at the end of each phase.<sup>156</sup> Clients’ needs and tastes are critical concerns throughout the design process.<sup>157</sup> The extent to which architects depend on clients to be able to generate building designs that have any chance of being realized differentiates them

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HANDBOOK] (discussing the customized design process architects undertake for their clients). Traditionally, architects have designed custom buildings using largely standard, off-the-shelf construction materials as components. However, recent technological developments have raised the possibility of customization that extends further into the building’s components. ROBERTO NABONI & INGRID PAOLETTI, *ADVANCED CUSTOMIZATION IN ARCHITECTURAL DESIGN AND CONSTRUCTION* (2015).

150. See Jeremiah Eck, *Quality Time*, ARCHITECT MAG. (Nov. 2, 2004), [https://www.architectmagazine.com/practice/quality-time\\_o](https://www.architectmagazine.com/practice/quality-time_o).

151. In their categorization of degrees of customization in service delivery, Professors Joseph Lampel and Henry Mintzberg use architecture as an example of pure customization. Lampel & Mintzberg, *supra* note 3, at 26.

152. See ROGER K. LEWIS, *ARCHITECT? A CANDID GUIDE TO THE PROFESSION* 224–26 (3rd ed. 2013).

153. See AIA HANDBOOK, *supra* note 149, at 654–64.

154. See *supra* notes 112–14 and accompanying text.

155. See AIA HANDBOOK, *supra* note 149, at 589–90.

156. See *id.* at 561–64.

157. DANA CUFF, *ARCHITECTURE: THE STORY OF PRACTICE* 32–33 (1991); RICHARD GUTMAN, *ARCHITECTURAL PRACTICE: A CRITICAL VIEW* (1988); Magali Sarfatti Larson, *Emblem and Exception: The Historical Definition of the Architect’s Professional Role*, in *PROFESSIONALS AND URBAN FORM* 49, 52 (Judith R. Blau et al. eds., 1983). At the same time, architects with reputations as top-notch designers also try to use their clients’ projects to express their own artistic impulses, which sometimes generates friction between architects and their clients. Cf. CUFF, *supra*, at 56 (arguing that architects sometimes deny the role that their clients play in design because their professional identity is wound up with being the font of creativity).

from most other artists in that it prevents them from operating on a speculative basis.

Professional architects are responsible for the design of most nonresidential projects.<sup>158</sup> In part, this dominance is a consequence of the legal requirement that only licensed architects can design most nonresidential projects.<sup>159</sup> In part, it is also due to the design of nonresidential projects necessitating the customized creative process that lies at the core of architects' expertise: buildings are functional, and future building owners' needs are individuated.<sup>160</sup> As the AIA Handbook states, "[W]hether simple or complex, each architectural assignment is unique, with particular circumstances and requirements that affect the design process."<sup>161</sup> All clients have different sites.<sup>162</sup> A building designed for one site often cannot be constructed on another site without significant changes to the parti and thus more customization services.<sup>163</sup> Different clients also have different programmatic requirements. Not only can a work designed to function as one type of institution, say a museum, rarely be repurposed in a functionally acceptable manner for another type of institution, say a theater, but different museums anticipate different daily traffic from visitors and thus need different buildings. Clients' needs also often extend beyond the program to include preferences on issues such as building technology, sustainability, and construction schedule that demand further customization.<sup>164</sup> Finally, clients' budgets also differ significantly, and an increase or decrease in a budget often requires significant redesign.<sup>165</sup>

The process that leads to the design of single-family homes looks radically different. Developers and merchant builders dominate

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158. The AIA measures the economic health of the architectural profession by charting national spending on nonresidential building. AM. INST. OF ARCHITECTS, FIRM SURVEY REPORT 5 (2016), <https://static1.squarespace.com/static/572366c9f8baf385ff5362f2/t/57ec11699f74562532de9c4c/1475088747344/2016-AIA-Firm-Survey-Report-Overview.pdf>.

159. See GUTMAN, *supra* note 157, at 61–69 (discussing the exclusive domain of a registered architect and the competition among architects, engineers, and interior designers on the boundary of that domain).

160. See *supra* Subpart II.F.1 (discussing why building owners' preferences for building designs are intense and diverse).

161. AIA HANDBOOK, *supra* note 149, at 655.

162. *Id.* at 656 (discussing the shape of a parcel of land, its points of access, its vistas, its topographic and soil conditions, its climate, and its jurisdictional building codes and zoning requirements).

163. Context also matters. *Id.*; cf. MATTHEW FREDERICK, 101 THINGS I LEARNED IN ARCHITECTURE SCHOOL 92 (2007) (quoting Eliel Saarinen, who taught to "[a]lways design a thing by considering it in its next larger context—a chair in a room, a room in a house, a house in an environment, an environment in a city plan.").

164. AIA HANDBOOK, *supra* note 149, at 656.

165. *Id.*

production in the market for single-family homes, and unlicensed designers, rather than architects, produce most plans for developers and merchant builders.<sup>166</sup> Given the notoriously repetitive home designs in many subdivisions, sometimes in mirror images and with superficial modifications,<sup>167</sup> the fact that most single-family homes in the United States are built using commoditized stock plans should come as no surprise.<sup>168</sup> The process of designing stock plans for single-family homes “differ[s] very much from the idealized description of the architect’s role that is common in professional circles.”<sup>169</sup> The designer’s goal in creating the typical stock plan home design is not to accommodate a particular client’s tastes and needs but to craft a work that speaks to the popular taste of some segment of the anonymous home-buying public.<sup>170</sup> Market research into the tastes of the average consumer drives plans for stock houses toward normalized, conventional designs,<sup>171</sup> relegating the architectural

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166. In many states, unlicensed designers can stamp drawings for single-family homes. See EDWARD ALLEN & ROB THALLON, *FUNDAMENTALS OF RESIDENTIAL CONSTRUCTION* 54 (3d ed. 2011). The professional architects who are involved in the design of developer-driven single-family homes are sometimes the subject of ridicule. In the words of a noted sociologist of the architectural profession, stock-plan designers “occupy the same status within the [architectural] profession that ‘ambulance chasers’ occupy in the legal profession or that ‘abortionists’ once held in the medical profession.” Robert Gutman, *U.S. Architects and Housing: 5 Relationships*, in *ARCHITECTURE FROM THE OUTSIDE IN: SELECTED ESSAYS BY ROBERT GUTMAN* 227, 232 (Dana Cuff & John Wriedt eds., 2010).

167. See generally PAUL L. KNOX, *METROBURBIA, USA* 1–5 (2008) (describing the homebuilding industry and the physical structure of the suburbs that it produces).

168. Eighty to ninety percent of all new housing units, including both single-family homes and multifamily residences, embody commoditized, stock-plan designs. See ALLEN & THALLON, *supra* note 166, at 54; ROBERT GUTMAN, *THE DESIGN OF AMERICAN HOUSING: A REAPPRAISAL OF THE ARCHITECT’S ROLE* 1–2 (1985); Robert Gutman, *Architects in the Home-Building Industry*, in *PROFESSIONALS AND URBAN FORM*, *supra* note 157, at 208, 209–10. The domination of developers and merchant builders is especially true in the middle of the market between government-subsidized, low-income housing and high-end, luxury homes. Robert Gutman, *Two Questions for Architecture*, in *ARCHITECTURE FROM THE OUTSIDE IN: SELECTED ESSAYS BY ROBERT GUTMAN*, *supra* note 166, at 239, 242. The lack of any involvement in the design and construction of most American homes leads some professional architects to argue that they should seek ways of becoming more involved. See Duo Dickinson, *Architects Design Just 2% of All Houses—Why?*, *COMMON EDGE* (Apr. 7, 2016), <https://commonedge.org/architects-design-just-2-of-all-houses-why/>.

169. GUTMAN, *supra* note 168, at v.

170. *Id.* at 6.

171. To produce mass-market homes, architects “must begin to appreciate those features of housing aesthetics that appeal to the average consumer and incorporate these features in their designs. This implies that the

intelligence required to offer the customization services that is emphasized in the AIA handbook to a subservient role.<sup>172</sup> Furthermore, while single-family houses are just as functional as nonresidential projects, the need for individuation in their functional properties is not nearly as strong. The lots for single-family homes are largely interchangeable, the diversity of programmatic requirements is much smaller, and budgetary constraints fall into well-established tiers.<sup>173</sup> This decrease in preference diversity explains why stock plans predominate in the homebuilding market.

Although the market for single-family homes tilts toward commoditization, the tilt is moderated toward the upper end of the market as future homeowners' willingness to pay for customization grows larger.<sup>174</sup> Some single-family homes are still tailored to the tastes and needs of known clients by professional architects. The basic tradeoff between the monetary costs of customization and the increased utility of customized designs has long been recognized as the principal concern for individuals weighing the options of custom and stock designs for their homes.<sup>175</sup>

## 2. Copyright Infringement Litigation

If the customization effect holds sway in the market for designs for nonresidential projects, it should impact the kinds of disputes in which the owners of copyrights in custom architectural works bring infringement actions.<sup>176</sup> More specifically, it should lead to a dearth

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architect . . . must to some extent internalize the values and perceptions of the marketplace and cater to them." *Id.* at 23.

172. *Id.* at 8, 14, 18–19, 56. Modern architects have from time to time created innovative stock plans for houses that did not reflect popular taste, but they were rarely commercially successful. *See id.* at 21.

173. In addition, the pure size of the market means that there are greater economies of scale to be realized from commoditization. Aesthetic preferences may also be more homogeneous in the market for single-family homes. Houses that conform to social expectations are read as signs that a family has made it as a socioeconomic matter, and they are also believed to maximize the resale value of what is many families' principal investment.

174. *See* Robert Dietz, *Custom Home Market Sees Growth*, BUILDER MAG. (Oct. 31, 2017), [https://www.builderonline.com/money/economics/custom-home-market-sees-growth\\_o](https://www.builderonline.com/money/economics/custom-home-market-sees-growth_o).

175. *See House Plans, Ready-Made*, CHANGING TIMES, Aug. 1961, at 31–33. Today, the price for the first full set of construction documents for a stock design is around \$250 to \$450, with a lower price for the additional copies needed for the builders and the local building office. ALLEN & THALLON, *supra* note 166, at 58. In contrast, an architect's services run somewhere between 10 to 15 percent of the construction cost of the house. *Id.* at 59.

176. The copyright owner will usually be the architect who authored the architectural work. The industry-standard AIA architect–client contract provides that the architect retains copyright and grants the client a use license. AM. INST. OF ARCHITECTS, AIA DOCUMENT B101–2017 STANDARD FORM OF

of infringement actions in cases involving custom works that is selective on two dimensions. The first hypothesis is that, in infringement actions involving custom nonresidential projects, suits against clients and departing employees may be common whereas suits against strangers will be rare. An absence of demand for back-end copies eliminates the factual predicate needed to bring infringement actions against strangers. The second hypothesis is that while suits against strangers will be rare in cases involving custom nonresidential projects, they will not be as rare in cases involving custom single-family homes. That is, the percentage of custom-work suits against strangers should be smaller in the market for nonresidential projects (the quasi-experimental group) and larger in the market for single-family homes (the quasi-control group).

To test these two hypotheses, the author gathered a universe of 345 copyright litigation cases involving architectural works protected by the AWCPA that were filed in the twenty-six years after the AWCPA's effective date.<sup>177</sup> These cases were labeled according to the program of the building at issue, with the most important categories being nonresidential projects (excluding commercial trade dress) and single-family homes.<sup>178</sup> They were also labeled as either custom or stock works according to the process that generated the copyrighted design. Finally, cases involving custom works were further sorted into three categories based on the relationship between the copyright owner and the alleged infringer. *Client suits* involved disputes over front-end copies between parties in an architect-client

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AGREEMENT BETWEEN OWNER AND ARCHITECT § 7 (2017) [hereinafter AIA OWNER-ARCHITECT AGREEMENT].

177. The time window ran from December 1, 1990, to November 30, 2016. The universe of cases includes all federal cases referencing allegations of infringement of an architectural work protected by the AWCPA in which there is a published opinion in either Lexis or Westlaw. This observed universe is only a part of all filed infringement cases and a yet smaller part of all infringement disputes. *Cf. infra* note 188 (noting concerns about whether the observed cases accurately represent the unobserved cases). The study intentionally excluded architectural works protected by pre-AWCPA copyright. Pre-AWCPA copyright protects architectural designs fixed in drawings but not constructed buildings. *See Collins, supra* note 142, at 712–16. Strangers will often copy from buildings, but clients usually must copy from drawings because no constructed building exists at the time they want to appropriate architects' designs. *See id.* at 755–60. Therefore, under pre-AWCPA copyright, any dearth of infringement suits against strangers, but not clients or departing employees, could easily be attributed to the weakness of the doctrinal infringement case when building copying is plausible.

178. These two programmatic categories exclude multifamily residential projects. This omission is intentional. The tilt in the market for multifamily residential projects is not clear, so data on the presence or absence of stranger suits is not meaningful.

relationship.<sup>179</sup> *Employee suits* involved disputes between architecture firms and their former employees. *Stranger suits* encompassed all other disputes.

With respect to the first hypothesis, stranger cases involving nonresidential projects (excluding commercial trade dress) do turn out to be quite rare. As shown in Table 1 below, there are sixty-nine infringement cases involving custom-work, nonresidential copyrights, and only one of them—*Shine v. Childs*<sup>180</sup>—is a stranger suit. In *Shine*, Thomas Shine, a student at the Yale School of Architecture, designed a twisting skyscraper in a studio course in 1999.<sup>181</sup> The well-known architect David Childs of Skidmore, Owings, and Merrill served on the jury of experts invited to critique Shine's project at the end of the semester.<sup>182</sup> Childs later designed an early version of the Freedom Tower on the 9/11 site in New York City.<sup>183</sup> Noting a strong resemblance between his student project and the Freedom Tower proposal, Shine filed an infringement suit.<sup>184</sup> *Shine* received significant attention in the press, and the case has become something of a poster child for architectural copyright litigation.<sup>185</sup> However, holding out *Shine* as an exemplar of AWCPA litigation radically distorts the conditions under which architects who design

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179. Suits are client suits even if a competitor architect is the named defendant, so long as a client passed along the copyrighted design to, and became the client of, the competitor architect. More specifically, client suits are made up of four more specific types of cases. In *contractual-client suits*, clients have signed architect-client contracts. *Pre-client suits* arise when architects provide copyrighted designs to clients with the (unrealized) expectation that the clients will eventually sign such contracts. *Client successor-in-interest suits* involve architects who provide contractual or precontractual clients with copyrighted designs and the parcels of land on which the works are sited change ownership. Finally, *architect-infringer suits* reverse the parties around the “v.” Clients make contributions to works during the customization process, and the architects employ that contribution in future projects for different clients.

180. 382 F. Supp. 2d 602 (S.D.N.Y. 2005).

181. *Id.* at 605.

182. *Id.*

183. *Id.* at 606.

184. *Id.* at 606–07. The case survived Childs's motion for summary judgment. *See id.* at 607–16. It settled before trial. *See* Andrew Mangino, *Freedom Tower Suit Resolved*, YALE DAILY NEWS (Sept. 26, 2006, 1:39 AM), <https://yaledailynews.com/blog/2006/09/26/freedom-tower-suit-resolved/>.

185. *See* Fred A. Bernstein, *Hi Gorgeous. Haven't I Seen You Somewhere?*, N.Y. TIMES (Aug. 28, 2005), <https://www.nytimes.com/2005/08/28/arts/design/hi-gorgeous-havent-i-seen-you-somewhere.html>; Jeffrey Brown, *Too Close for Comfort*, ARCHITECT MAG. (Nov. 2, 2007), [https://www.architectmagazine.com/practice/too-close-for-comfort\\_o](https://www.architectmagazine.com/practice/too-close-for-comfort_o); Witold Rybczynski, *When Architects Plagiarize: It's Not Always Bad*, SLATE (Sept. 14, 2005, 6:14 AM), <https://slate.com/culture/2005/09/architects-who-plagiarize.html>.

custom nonresidential projects actually exercise their copyrights, given that they almost never sue strangers.<sup>186</sup>

TABLE 1: CUSTOM-WORK CASES IN THE PROGRAMMATIC CATEGORIES

|                            | Nonresidential<br>Custom-Work Cases |     | Single-Family Home<br>Custom-Work Cases |     |
|----------------------------|-------------------------------------|-----|---|-----|
| Stranger Suits             | 1                                   | 1%  | 7                                       | 18% |
| Client & Employee<br>Suits | 68                                  | 99% | 33                                      | 82% |

With respect to the second hypothesis, stranger cases involving custom single-family homes also do turn out to be more common than stranger cases involving custom nonresidential projects. There are forty cases that involve custom designs for single-family homes, and seven of them are suits over back-end copies against strangers. As Table 1 reveals, the percentage of stranger suits in cases involving custom nonresidential projects is considerably lower than the percentage of stranger suits in cases involving custom single-family homes.<sup>187</sup> Architects who produce custom works in the market for nonresidential projects that tilts strongly toward customization rarely sue strangers, whereas architects who produce custom works in the mixed market for single-family homes sue strangers on a more regular basis.<sup>188</sup>

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186. One could argue that *Shine* is not really even a stranger suit because of the student–critic relationship between the parties. See *Shine*, 382 F. Supp. 2d at 605. Interestingly, after the window for the litigation study closed, another architect filed an infringement suit alleging that an instructor copied a skyscraper project that he designed as a student. The allegedly infringing work is the Freedom Tower designed by Skidmore, Owings, and Merrill on the 9/11 site that was actually constructed. *Park v. Skidmore, Owings & Merrill LLP*, No. 17-cv-4473, 2019 WL 9228987, at \*1–2 (S.D.N.Y. Sept. 30, 2019).

187. Although the numbers are small, the difference is statistically significant. With small numbers, significance is best measured using the Fisher’s exact probability test. See John H. McDonald, *Fisher’s Exact Test of Independence*, HANDBOOK OF BIOLOGICAL STAT. (July 20, 2015), <http://www.biostat handbook.com/fishers.html>. The two-tailed P-value using this test is less than 0.0036, using the calculator available at <http://vassarstats.net/tab2x2.html>.

188. As with all litigation studies, one concern with the data is that the observed disputes may not be representative of unobserved disputes. Robert D. Cooter & Daniel L. Rubinfeld, *Economic Analysis of Legal Disputes and Their Resolution*, 27 J. ECON. LITERATURE 1067, 1082 (1989); Theodore Eisenberg, *Litigation Models and Trial Outcomes in Civil Rights and Prisoner Cases*, 77 GEO. L.J. 1567, 1568 (1989). More specifically, the real worry is the possibility of a larger percentage of unobserved stranger suits in cases involving custom, nonresidential projects. While this possibility cannot be dismissed, there are



### 3. *Copyright's Justification*

The factual scenarios that give rise to the architectural-copyright infringement cases considered in the previous Subpart show that the normative justifications for copyrights in custom nonresidential projects are precisely those that one expects to see when the customization effect is in full swing.<sup>189</sup> When the market tilts strongly toward customization, architects are not using their copyrights in the manner envisioned by the market-buffer theory. They are instead using their copyrights in the manner envisioned by the transactional theories and the theory of the firm.

If the architects of nonresidential projects were using their copyrights as anticipated under the market-buffer theory, they would be tailoring a design to a client's tastes and needs and then exercising their copyrights to maintain a price premium for strangers' reuse of the designs.<sup>190</sup> The anticipated stranger suits, however, do not exist.<sup>191</sup> The nature of these absent suits is perhaps best highlighted by drawing a contrast with the numerous cases involving stock plan single-family homes.<sup>192</sup> These cases fit the expectations of the

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good reasons to suspect that the inverse possibility—a larger percentage of unobserved client suits in cases involving custom, nonresidential projects—is more likely. (If client suits are underrepresented in the observed cases, the study's findings would be consistent with a yet starker version of the customization effect.) Many client suits sound in contract and can be filed in state courts if the copyright issue is not explicitly raised, whereas stranger suits must sound in copyright and must be filed in federal court. The study's universe only contains federal cases, *see supra* note 177, so it may underrepresent client suits. In addition, industry-standard AIA contracts before 2007 contained mandatory mediation and arbitration provisions, filtering some client suits, but not stranger suits, out of the study's universe. AIA HANDBOOK, *supra* note 149, at 1032. (The 2007 AIA contracts made arbitration optional. *Id.* at 1032–33.) A separate concern arises from potential settlement bias. These concerns are real, but they are not as strong as they are in many litigation studies. Litigation studies frequently only observe cases that reach final verdicts or that get appealed. *See, e.g.,* George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1, 6–7 (1984) (observing disputes only after a trial verdict). The AWCPA study observes disputes upon the publication of a first opinion. *See supra* note 177. Many cases in its universe are marked only by preliminary opinions resolving issues such as personal jurisdiction or discovery disputes, mitigating the extent to which bias in post-filing settlements can lead to bias in the observed disputes.

189. *See supra* Subpart II.C (describing how the reliance on upfront client fees that the customization effect causes impacts copyright's normative justification).

190. *See supra* notes 50–52 and accompanying text.

191. *See supra* Table 1.

192. There are 181 cases involving stock plans for single-family homes in the litigation study's universe of 345 cases.

market-buffer theory.<sup>193</sup> Subdivision developers sue their competitors to maintain a competitive advantage in their home design portfolios,<sup>194</sup> and they sue individual homeowners who visit their model homes and instruct architects to draw up plans for similar homes.<sup>195</sup> Homebuilders sue when builders copy architectural drawings filed with the local building department.<sup>196</sup> Stock plan licensors sue homebuilders for making unlicensed, constructed-building copies,<sup>197</sup> and they sue future homeowners for copying publicly available plans and providing them to builders.<sup>198</sup> These tooth-and-nail fights that the owners of copyrights in stock plans for single-family homes have with competitors and free-riding consumers are to be expected if copyright is being used to erect and protect a market buffer. In contrast, architects who design custom nonresidential works almost never get into such fights.

One reason why the lack of suits against strangers who make back-end copies might seem surprising is that there is an intuitively plausible second-group caveat on the customization effect. Even if future building owners don't want back-end copies of customized nonresidential projects, there is likely demand for back-end photographic copies of nonresidential projects.<sup>199</sup> In fact, trademark and trade dress infringement disputes in which building owners attempt to buffer themselves from competition for merchandizing items emblazoned with images of their buildings demonstrate this demand.<sup>200</sup> However, this demand for photographic back-end copies

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193. These cases do not in any way suggest that copyright is normatively justified under the market-buffer theory; they do not demonstrate that copyright is producing more incentive benefits than access costs.

194. *Lennar Homes of Tex. Sales & Mktg., Ltd. v. Perry Homes, LLC*, 117 F. Supp. 3d 913, 920 (S.D. Tex. 2015).

195. *Cornerstone Home Builders, Inc. v. McAllister*, 303 F. Supp. 2d 1317, 1318 (M.D. Fla. 2004).

196. *David & Goliath Builders, Inc. v. Kramer*, No. 09-CV-0621, 2010 WL 145849, at \*1 (E.D. Wis. Jan. 8, 2010).

197. *Danze & Davis Architects, Inc. v. Legend Classic Homes, Ltd.*, No. H-10-0216, 2011 WL 2940671, at \*1 (S.D. Tex. July 19, 2011).

198. *Plan Pros, Inc. v. Zych*, No. 8:08CV125, 2009 WL 5213997, at \*2 (D. Neb. Dec. 22, 2009).

199. See *supra* note 103 and accompanying text.

200. See *Rock & Roll Hall of Fame & Museum, Inc. v. Gentile Prods.*, 134 F.3d 749, 751 (6th Cir. 1998) (asserting that using I.M. Pei's Rock & Roll Hall of Fame's trademarks on posters "reflect[ed] a deliberate attempt to confuse, mislead and deceive the public into believing that the posters are affiliated with the Museum . . ."); David W. Dunlap, *Design Notebook; What Next? A Fee for Looking?*, N.Y. TIMES (Aug. 27, 1998), <https://www.nytimes.com/1998/08/27/garden/design-notebook-what-next-a-fee-for-looking.html> (describing trademark law controversy surrounding dishware with images of New York City landmark buildings). In theory, building owners are using their trademark and trade dress rights in these cases to reduce consumer confusion and internalize more of their good will. In practice, however, they are often using these rights to buffer

does not register in the litigation study because architectural copyright does not extend to most architectural photography under the AWCPA.<sup>201</sup> Contemporary copyright thus denies protection to the precise kind of copy for which there is no reason to expect consumer preferences to be unusually intense and diverse.

The architects of custom nonresidential projects do regularly use their copyrights in client suits in the manner anticipated by the transactional theories of copyright.<sup>202</sup> There are three kinds of these client suits, each involving appropriation of copyrighted works at different times and each illustrating a different strand of the transactional theories at work.

In the first kind of client suit, appropriation by the client occurs before a contract has been signed. *Johnson v. Jones*<sup>203</sup> provides a typical example. An architect met with a client about her desire to remodel a house into her dream home.<sup>204</sup> At the client's repeated urging, the architect delivered a set of drawings, but the architect–client relationship eventually soured over the negotiation of contract terms, so no contract was ever executed.<sup>205</sup> When the client continued to develop the plans with a new architect but refused to pay the initial architect's bill for services rendered, the initial architect filed an infringement suit.<sup>206</sup> This is the kind of suit that one expects to see if copyright is being used to overcome Arrow's information paradox.<sup>207</sup> Architects (the information sellers) disclose design information to their clients (the information buyers). Their clients appropriate that design information, taking it to other architects for refinement and realization as a building without providing what the architects believe to be full payment. The architects then sue for infringement.

In a second, rarer kind of client suit, appropriation occurs after a building has reached substantial completion and all payments due under the architect–client contract have been made. Here, the initial service agreements only provide for the construction of one building, and clients seek to build additional copies without paying any

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themselves from competition in the market for a particular product. See Stacey L. Dogan & Mark A. Lemley, *The Merchandising Right: Fragile Theory or Fait Accompli?*, 54 EMORY L.J. 461, 461–64, 470 (2005) (discussing the tension between “the procompetitive goal of promoting marketplace clarity” and “the objective of ensuring competition in product features”).

201. AWCPA copyright does not extend to photographic representations of buildings located in public places. 17 U.S.C. § 120(a).

202. See *supra* Subpart II.C.2. Client suits are the most common form of non-stranger suit. Of the sixty-nine cases involving custom nonresidential projects, sixty-three are based on client suits. Of the forty cases involving custom single-family homes, thirty are client suits.

203. 149 F.3d 494 (6th Cir. 1998).

204. *Id.* at 497.

205. *Id.* at 497–98.

206. *Id.* at 494, 499.

207. See *supra* notes 58, 61–66 and accompanying text.

additional licensing fee.<sup>208</sup> This is a kind of suit that should be expected when copyright is being used to provide enforcement flexibility in disputes between contractual partners.<sup>209</sup> Without invoking copyright, the architect–client contract could, in theory, expressly state that the client can only use an architect’s design to construct a single copy of a building. However, this limitation on use (a form of second-degree price discrimination) is more easily enforced, and the consequences of client misappropriation of a design are more severe, if architects have copyright protection for their designs and retain it in the architect–client agreement.<sup>210</sup>

The third kind of client suit is the most common. These client suits arise from client appropriation in the time window in between the first and second kinds of client suits. For example, consider *Saxelbye Architects, Inc. v. First Citizens Bank & Trust Co.*<sup>211</sup> An architect and a client signed an agreement to renovate a data processing building and build another.<sup>212</sup> Before the project was complete, the client terminated the architect, paid for services rendered as stated in the contract, and hired a new architecture firm.<sup>213</sup> The architect then sued, alleging that the new architecture firm’s continued use of the design amounted to copyright infringement.<sup>214</sup> Cases like *Saxelbye* are possible because architects produce a design through a series of contractually specified phases,<sup>215</sup> architect–client contracts are terminable at the client’s convenience during or after any phase,<sup>216</sup> and clients often do not have implicit licenses to use terminated architects’ partially completed designs without an additional payment.<sup>217</sup>

Cases like *Saxelbye* illustrate transactional copyright in action, but it is not entirely clear which branch of the transactional theory they implicate. On the one hand, if the client had paid what is due under the contract in full upon termination of the architect, *Saxelbye* looks like a case in which copyright is being used to increase

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208. See *Bonner v. Dawson*, 404 F.3d 290, 292 (4th Cir. 2005); *Womack+Hampton Architects, L.L.C. v. Metric Holdings Ltd. P’ship*, 102 F. App’x 374, 382 (5th Cir. 2004).

209. See *supra* notes 59, 67–70 and accompanying text.

210. The standard architect–client contract requires additional fees for the construction of additional buildings, even if the additional buildings are based on existing working drawings. See AIA OWNER–ARCHITECT AGREEMENT, *supra* note 176, at § 7.3.

211. No. 96-2766, 1997 WL 702290 (4th Cir. Nov. 3, 1997).

212. *Id.* at \*1.

213. *Id.*

214. *Id.* The court reversed and remanded the trial court’s judgment in favor of the client. *Id.* at \*3–\*4.

215. AIA HANDBOOK, *supra* note 149, at 661.

216. See AIA OWNER–ARCHITECT AGREEMENT, *supra* note 176, § 9.5.

217. Collins, *supra* note 142, at 748–49 (discussing the conditions under which courts grant clients an implied license to use terminated architects’ designs).

enforcement flexibility.<sup>218</sup> On the other hand, copyright may be helping to overcome a variant of Arrow's information paradox.<sup>219</sup> This argument is plausible even though an architect-client contract has been signed. Industry standard fee schedules often backload architects' fees into the final phases of the multiphase architect-client agreement, so a client who terminates an agreement after the earliest phases can appropriate design information without fully compensating the architect.<sup>220</sup>

Finally, the set of employee suits observed in the litigation study fits the mold of the cases that one should expect if copyright plays the role anticipated under the theory of the firm of curbing opportunistic employee appropriation of firm assets.<sup>221</sup> *Innovative Networks, Inc. v. Satellite Airlines Ticketing Centers, Inc.*<sup>222</sup> is illustrative. Two architecture firms were in the business of designing airline business centers, and an employee of the first company left his job and became a consultant for the second.<sup>223</sup> He then used some blueprints developed by his first employer to "steal" a client from the first company, and the first company sued for infringement.<sup>224</sup>

### B. Freelance Photography

To gain some insight into how freelance photographers understand the value that they derive from copyright law, Professors Silbey, Subotnik, and DiCola conducted longform interviews with photographers who make a living by selling their services and photographs.<sup>225</sup> They parsed their data to surface a range of interesting insights into why photographers care about copyright.<sup>226</sup> One of their principal observations is that photographers view copyright as a way to get more leverage in their upfront negotiations with clients, but not as a tool for monetizing back-end copies by strangers.<sup>227</sup> As in architecture, this story calls for an overhaul in conventional thinking about copyright's normative justification.<sup>228</sup>

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218. See *supra* notes 67–70 and accompanying text.

219. See *supra* notes 61–66 and accompanying text.

220. See Collins, *supra* note 142, at 745–47 (discussing the postexecution variant of Arrow's information paradox in the delivery of custom architectural services).

221. See *supra* Subpart II.C.3. Employee cases are not as common as client cases. Of the sixty-nine cases involving custom nonresidential projects, six are departing-employee suits. Of the forty cases involving custom single-family homes, three are departing-employee suits.

222. 871 F. Supp. 709 (S.D.N.Y. 1995).

223. *Id.* at 713–15.

224. *Id.* at 715–16.

225. Silbey et al., *supra* note 20, at 271, 275.

226. *Id.* at 267–69 (summarizing three ways photographers find value in copyright).

227. See *id.* at 268.

228. See *id.*

Professors Silbey, Subotnik, and DiCola focus their analysis on photography as customized creativity or a fee-for-service arrangement in which the service delivered is unique to the client.<sup>229</sup> Paralleling the division established above for customized creativity in general,<sup>230</sup> they note that the photography market has two components.<sup>231</sup> There are “clients who hire photographers for a specific service” (and who obtain what this Article terms front-end copies), and there are “anonymous consumers” or “strangers” (who license back-end copies as market commodities).<sup>232</sup>

The primary economic reason why photographers care about copyright, Professors Silbey, Subotnik, and DiCola report, is because it provides them more leverage in contract negotiations with their clients.<sup>233</sup> More specifically, the benefit that photographers see appears to be a form of enforcement flexibility in which copyright backstops their contractual rights.<sup>234</sup> Photographers employ price discrimination to structure clients’ fees so that they reflect the value that clients derive from using the custom images rather than only the cost photographers incur to produce them.<sup>235</sup> They benefit from charging higher prices for certain genres of custom photography (e.g., weddings rather than photojournalism) and for clients’ uses of images in certain “venues” (e.g., print rather than the web).<sup>236</sup> In addition, the fees that photographers charge their clients increase for clients who want more copies (e.g., international rather than local distribution of a magazine) and higher resolution images.<sup>237</sup> Copyright—and, more specifically, copyright retention by the

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229. *Id.* at 280. *But cf. infra* notes 244–45 and accompanying text (noting that some interviewees were fine-art photographers).

230. *See supra* Subpart II.B.

231. Silbey et al., *supra* note 20, at 268.

232. *Id.* at 268. This distinction is only viable when photographers produce customized creativity.

233. *Id.* at 268, 280–81.

234. *See supra* notes 59, 67–70 and accompanying text. There is no mention of photographers valuing copyright as a tool for facilitating precontractual disclosures and resolving Arrow’s information paradox. *See supra* notes 58, 61–66 and accompanying text. Photographers may differ from architects in this respect, *see supra* notes 203–07 and accompanying text, perhaps because photographers usually have a contract in place requiring payment in full at the time they disclose their creative works to their clients.

235. Other factors, including the cost of production, also influence client fees. Silbey et al., *supra* note 20, at 280–82.

236. *Id.* at 290–92 (discussing third-degree price discrimination). Suggesting that the grass is always greener on the other side, photographers also bemoan being paid less for images that clients value less because “[f]or the photographer, these uses are not different in terms of labor and skill to produce and thus should cost the same.” *Id.* at 287; *see also id.* at 294–95 (voicing the same complaint).

237. *Id.* at 295–301 (discussing second-degree price discrimination).

photographer in the photographer–client contract<sup>238</sup>—is not technically necessary for photographers to structure their client fees in this fashion. If the concern is focused solely on front-end copies by clients, well-drafted contract provisions could accomplish these ends even if the photographer did not retain copyright. However, copyright unquestionably takes pressure off the need to draft airtight, complex contractual terms and augments the damages available upon breach.<sup>239</sup>

Inversely, photographers repeatedly note that they do not enjoy a significant revenue stream from licensing back-end copies of their custom images.<sup>240</sup> Most all of photographers’ income derives from the client fees that are due upon delivery of the images.<sup>241</sup> “[T]he aspirational goal of reselling to anonymous third parties is rarely achieved.”<sup>242</sup> Professors Silbey, Subotnik, and DiCola also cite the lack of interest in registration as evidence that reaffirms copyright’s lack of value in the market for back-end copies among strangers.<sup>243</sup>

The pattern of copyright value that Professors Silbey, Subotnik, and DiCola discern is precisely the pattern that the customization effect is expected to produce. If strangers have little willingness to pay for licenses to back-end copies, then photographers would naturally not perceive copyright as a tool with any value in the market for licensing back-end copies. Furthermore, the customization effect offers an intuitive explanation that reinforces the observed pattern of copyright value in many of the markets in which the interviewed photographers work.<sup>244</sup> As one of the

238. *Id.* at 280–81. Photographers resemble architects in that they normally retain copyright and license use rights to their clients. *See supra* note 176.

239. Photographers’ use of copyright to facilitate price discrimination is an example of how copyright can generate incentives to produce creative works even when it plays the role scripted by the transactional theories rather than the market-buffer theory. Silbey et al., *supra* note 20, at 281; *cf. supra* note 60 (arguing that copyright can generate dynamic incentives for creativity by playing the roles scripted by the transactional theories).

240. Silbey et al., *supra* note 20, at 279–81, 303.

241. *Id.* at 279, 280, 285.

242. *Id.* at 268. In fact, the interviews suggest not only that copyright has little value as a tool for monetizing back-end copies by strangers but also that clients rarely desire time-delayed, front-end copies that were not accounted for in the initial photographer–client contract. *Id.* at 283, 285. The customization effect only leads to an expectation of a lack of demand for back-end copies by strangers. If it were to exist, demand among clients for time-delayed, front-end copies would be consistent with the customization effect. *Cf. supra* notes 208–10 (discussing architectural copyright infringement cases in which the architect–client contract only provides for one copy of a building and the client builds additional copies without compensating the architect).

243. Silbey et al., *supra* note 20, at 283.

244. The data included interviews with photographers who do event photography, commercial/corporate photography, editorial photography (or

photographers interviewed by Professors Silbey, Subotnik, and DiCola noted, “a lotta things I shoot are specific to a client, so it’s not like, you know, if it’s a Victoria’s Secret bra, they’re not gonna find that on stock . . . .”<sup>245</sup> Nike simply won’t make do with pictures of either Adidas running shoes or last year’s models of its own running shoes.

There are, however, two caution flags that need to be heeded before chalking up the selective lack of value that photographers attribute to copyright to the customization effect as a cause. Both point to reasons to believe that the customization effect cannot explain the full extent of photographers’ perception of a lack of value in copyright as a tool for monetizing back-end copies of customized creativity.

First, it is clear that at least some of the markets faced by the freelance photographers that Professors Silbey, Subotnik, and DiCola interviewed do not tilt all the way toward customization.<sup>246</sup> Some interviewees were fine art photographers<sup>247</sup> who usually produce commoditized creativity: they work on a speculative basis and define the parameters of their projects based on their own artistic inclinations without any client in the picture (so to say).<sup>248</sup> Additionally, from the consumer’s perspective, stock photography is a viable alternative to custom photography in at least some segments of the freelance photography industry.<sup>249</sup> If the customization effect were the only thing driving photographers’ perceptions about copyright’s lack of value as a tool for monetizing back-end copies, then the uniformity of the perceived lack of value in copyright outside of its use as leverage in the photographer–client contract would be difficult to explain. Fine art photographers don’t have clients,<sup>250</sup> and the customization effect does not eliminate demand among strangers for back-end copies of customized creativity in mixed markets.<sup>251</sup>

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photojournalism), portrait photography, and fine-art photography. Silbey et al., *supra* note 20, at 275–76.

245. *Id.* at 300.

246. *Id.* at 279–80.

247. *Id.* at 275–76, 283.

248. *Id.* at 300, 304–05, 308. Many fine-art photographers produce what this Article calls auratic creativity. *See supra* note 29.

249. Professors Silbey, Subotnik, and DiCola repeatedly note how custom photographers increasingly feel threatened by competition on price from stock photography—which is the very definition of a mixed market—in the digital, internet age. Silbey et al., *supra* note 20, at 278, 285, 296–97, 299–300.

250. The interview data from fine-art photographers can be reconciled with the customization effect if the fine-art photographers worked across genres and earned most of their revenue from custom photography. *Id.* at 304–05 (noting that fine-art photography is not a significant source of revenue); *id.* at 290 (noting that many photographers work across genres).

251. A lack of granularity in the interview data makes it difficult to know whether competition from stock photography suffuses all of the market segments



Turning to the second caution flag, there is also direct evidence of some demand among strangers for back-end copies.<sup>252</sup> On rare occasions, freelance photographers seek out licensed uses for back-end copies.<sup>253</sup> They both license use rights to back-end copies of photojournalistic and editorial photographs to strangers through syndication agents,<sup>254</sup> and they think about reselling other images as stock works.<sup>255</sup> More frequently, photographers note that unauthorized back-end copies exist but that copyright doesn't help them control or monetize that copying.<sup>256</sup>

Furthermore, the proliferation of back-end copies is self-evident if one takes the scholarly equivalent of judicial notice of our cut-and-paste internet world. The existence of these back-end copies highlights the second-group caveat as an important limit on the plausible reach of the customization effect in freelance photography.<sup>257</sup> Some strangers are potential back-end copiers because they do not value a photograph for its documentary quality. The documentary quality of a photographic image exists because the image has a semantic meaning, and all semantic meaning, including the meaning of a photograph, is notoriously slippery and polyvalent.<sup>258</sup> Images can thus readily serve many different uses for many different groups of users.

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of freelance photography or whether it only exists in particular market segments. *Cf. id.* at 300 (quoting a photographer stating that clients will not use stock images “for anything important”). If the latter, then other market segments could still tilt strongly toward customization and exhibit a stark form of the customization effect. *Cf. supra* Subpart III.A.2 (finding evidence of copyright use that is consistent with the customization effect in the market for nonresidential projects in particular). Many photographers work across genres, Silbey et al., *supra* note 20, at 290, so analyzing individual market segments through interviews might be difficult.

252. Silbey et al., *supra* note 20, at 267–68.

253. *Id.* at 268.

254. *Id.* at 295 n.102. Only “a lucky few” photographers have substantial syndication fees. *Id.* at 303.

255. *Id.* at 284.

256. *Id.* at 301–02. One photographer interviewed, Michael Grecco, is so focused on such back-end copies that he is shifting his business away from taking photographs and toward pioneering a service for helping photographers enforce their copyrights. *Id.* at 303 n.127. A Lex Machina search on February 8, 2020, revealed more than eighty cases filed by Michael Grecco Productions, Inc. since 2015. The mixture of back-end copies and front-end copies by clients who exceeded their license terms in these litigated cases is not clear.

257. *See supra* note 104 and accompanying text.

258. *See generally* ROLAND BARTHES, *The Rhetoric of the Image*, in IMAGE MUSIC TEXT 32, 32–51 (Stephen Heath trans. 1977) (teasing many meanings out of an advertising image). In contrast, copies of architectural works that are buildings, rather than two-dimensional images of buildings, have a more material kind of functionality. This functionality makes buildings less amenable to alternative uses and thus leads to a starker version of the customization effect.

For example, assume that engaged couples do have intense and diverse preferences for photographs because they want the photographs to document their own wedding and that, within the group of engaged couples, the customization effect exists in a stark form. However, once the custom images of a wedding ceremony have been created, people other than engaged couples may want to make and display copies for reasons other than documenting wedding ceremonies. A florist may advertise her flower shop. A blogger may offer snarky commentary on the wedding-industrial complex. A minister may expound on the virtues of holy matrimony. An artist may see a tonal study and formal composition divorced from any consideration of the nature of the event that the image documents. For these image users—who, again, value the images for reasons other than to provide documentation of their own wedding—there is no reason to believe that preferences are unusually intense or diverse. A range of different wedding photographs documenting a range of different weddings will do just fine, so demand for both stock images and back-end copies of images taken by freelance photographers as custom images for clients should be expected.

In sum, photographers' perceived lack of value in copyright as a tool for monetizing back-end copies by strangers is starker than the customization effect, operating alone, would predict. To account for this starkness, additional explanations for the perception of copyright's selective lack of value must be layered on top of the customization effect (or, perhaps, supplant the customization effect altogether). Professors Silbey, Subotnik, and DiCola themselves focus on one viable alternative to explain their results, namely the cost of copyright enforcement.<sup>259</sup> Enforcement simply may not provide an expected net benefit, especially when the back-end copies are obtained for sufficiently low value uses.<sup>260</sup> The following Subpart puts this alternative explanation that focuses on enforcement costs in context and maps out a larger range of possibilities.

### C. *Alternative Explanations for Copyright Irrelevance*

When it emerges, the customization effect should make copyright irrelevant under the market-buffer theory. One ramification of this selective irrelevance is both a small number of infringement suits over back-end copies by strangers, if any, and authors' perception of only minimal value in copyright as a tool for monetizing back-end copies. However, the customization effect is not the only causal force

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*But cf.* MICHEL DE CERTEAU, *THE PRACTICE OF EVERYDAY LIFE* 29–42 (1984) (discussing how the everyday practices of a building's inhabitants amount to tactical resistance to reified ex ante conceptions of how the building should be used).

259. Silbey et al., *supra* note 20, at 267 n.17.

260. *Id.* at 267, 301–02. *But cf. supra* note 256 (noting an attempt to streamline copyright enforcement).

that could give rise to these patterns of copyright use and value. Alternative explanations may well help to foster the selective absence of copyright litigation involving nonresidential architecture, and they would seem to be necessary to capture the story that drives the selective absence of perceived value in copyright protection for freelance photography.

This Subpart briefly sketches an array of alternatives to the customization effect for explaining the patterns of copyright use and value identified in the previous Subparts. That is, it identifies a framework for thinking through distinct theories that can explain copyright irrelevance. The literature on copyright without creativity discusses some of these alternative theories.<sup>261</sup> This framework pushes the conversation forward in two ways. First, it offers a two-level taxonomy that casts new light on the ways in which the alternatives that have already been identified are interrelated. Second, it identifies some new, previously overlooked possibilities, including the customization effect itself.

The first-level distinction is that copyright may not be used or valued for different reasons in two opposing factual scenarios. On the one hand, there might not be any strangers making back-end copies. In this factual scenario, there must be some behavioral regulator or “modality of constraint” that eliminates copying behavior before copyright enters the picture.<sup>262</sup> This scenario can be called copyright *redundancy* because copyright’s ability to tamp down on back-end copies by strangers is superfluous in light of the fact that the other behavioral regulator is already doing this copy-reducing work. (As we will see, the customization effect is a member of the copyright redundancy family of explanations.) On the other hand, actionable back-end copying by strangers may abound in the world, but copyright owners may elect not to use their rights to prevent it. This is copyright *nonuse*.<sup>263</sup> To repeat, each family of theories—those

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261. See *supra* Subpart II.H.

262. Lawrence Lessig, *The New Chicago School*, 27 J. LEGAL STUD. 661, 662–64 (1998) (arguing that law, norms, the market, and architecture are “modalities of regulation” on human behavior).

263. Before getting to this distinction between types of copyright irrelevance, one could identify a zero-level distinction that is yet more fundamental. Copyright irrelevance assumes that copyright is not an important regulator of copying conduct. However, an absence of copyright litigation could also mean the opposite. Copyright could be hyperrelevant. Strangers may have internalized copyright’s legal rules to such an extent that all strangers are either deterred from engaging in conduct within the scope of copyright’s exclusive rights or acculturated to obtaining a license before doing so. While copyright hyperrelevance is, in theory, a viable explanation for a lack of copyright infringement suits, it is not a plausible explanation, in practice, for the pattern of architectural copyright litigation revealed in Subpart III.A.2. The architectural trade literature on copyright focuses predominantly on copyright’s importance in client suits; it does not emphasize that copyright can also be

based on copyright redundancy and nonuse—rests on a different empirical assumption about whether back-end copies are being made in the actual world. Copyright can be irrelevant whether or not copying is rampant.

The second-level distinction arises because both families of theories can involve either one of two different kinds of causal forces. As portrayed in Table 2, either cultural or market forces can lead to copyright nonuse. A communality or sharing norm can lead to shunning of those who enforce their copyrights, and thus to forbearance in copyright enforcement. Alternatively, the monetary costs of enforcement—including lawyers, court fees, and opportunity costs—can outweigh the expected monetary gains from litigation.<sup>264</sup>

TABLE 2: REASONS FOR COPYRIGHT NONUSE

|         |  | Supply                            |
|---------|--|-----------------------------------|
| Culture |  | Communality Norm<br>(Forbearance) |
| Market  |  | Costly Enforcement                |

As portrayed in Table 3, either cultural or market forces can also lead to copyright redundancy. Here, however, there is yet another distinction to track: the absence of back-end copies can arise from either authors' lack of interest in supplying copies (a supply-side explanation) or consumers' lack of willingness to pay for copies (a demand-side explanation). These two variables lead to four options in a two-by-two matrix. Starting in the upper-left box, anticopying norms are a cultural, supply-side constraint on copying behavior that operates in parallel with copyright's deterrent effect. Moving

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deployed in stranger suits. *See, e.g.*, AIA HANDBOOK, *supra* note 149, at 180–85 (focusing on copyright's impact on the architect–client relationship). This narrow focus extends to much of the legal literature on architectural copyright, too. *See, e.g.*, Amy Goldsmith & Laurie Stanziale, *Whose Line, Drawing or Plan Is It Anyway?: Part 1*, LAW360 (Sept. 19, 2016, 1:31 PM), <https://www.law360.com/articles/836936> (same). Nor is there evidence of robust licensing activity between custom architects who are strangers. In addition, the history of architectural copyright undercuts the hyperrelevance explanation. Before the enactment of the AWCPA in 1990, architectural copyright was not strong enough as a doctrinal matter to reach most copying by strangers. *See* Collins, *supra* note 142, at 721. The notion that copyright transitioned from legally irrelevant with respect to stranger copying to so relevant that custom architects resist it without discussing it is difficult to fathom.

264. Although labeled costly enforcement, the relevant variable is actually the expected net benefit of litigation: the value of the remedies available multiplied by the likelihood of success on the merits, minus enforcement costs.

counterclockwise, costly copying creates a market-based, supply-side constraint on copying when the monetary cost of copying is higher than the monetary cost of independent creation.<sup>265</sup> Next, the customization effect is a market-based, demand-side constraint on copying. If copies are not valuable to strangers, strangers will make them.<sup>266</sup> Finally, a cultural, demand-side restriction on copying could take the form of a consumer boycott on copies.

TABLE 3: REASONS FOR COPYRIGHT REDUNDANCY

|         | Supply           | Demand               |
|---------|------------------|----------------------|
| Culture | Anticopying Norm | Copy Boycott         |
| Market  | Costly Copying   | Customization Effect |

The taxonomy represented in Tables 2 and 3 reveals a range of alternative explanations for the stark pattern of litigation over infringement of architectural copyright in which architects do not sue strangers for making back-end copies.<sup>267</sup> The customization effect provides one plausible theory to explain this litigation pattern, but it certainly does not provide the only viable theory. The selective failure of architects who design custom nonresidential projects to litigate copyright disputes with strangers may well arise from the customization effect working in concert with one or more of these alternative explanations.<sup>268</sup>

In photography, too, some of these alternative explanations of copyright irrelevance likely drive how photographers perceive the value of their copyrights.<sup>269</sup> More forcefully, some of these alternative explanations would seem to necessarily be at work, given the unexpectedly stark nature of the perceived lack of value in copyright as a tool for monetizing back-end copies by strangers. Yet more

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265. Tacit knowledge figures prominently here. See POLANYI, *supra* note 92, at 72–89. Cf. *supra* note 92 and accompanying text (discussing the theory that custom services are difficult to copy). Technological protection measures may also make copying more costly.

266. Market regulation is most conventionally conceived as a reduction in demand due to an increase in price. Lessig, *supra* note 262, at 663. The customization effect implicates market regulation of copying through a decrease in purchasers' willingness to pay.

267. See *supra* Subpart III.A.

268. Bracketing the consumer boycott of unauthorized conduct among professional architects' diverse clients as implausible, four alternatives remain. For an examination of the plausibility of these various theories as explanations for the way in which architects use their copyrights, see KEVIN EMERSON COLLINS, *THE INTELLECTUAL PROPERTIES OF ARCHITECTURE* (forthcoming 2022).

269. See *supra* Subpart III.B.

specifically, a theory that falls within the family of copyright nonuse, rather than only additional redundancy theories, would seem to be necessary to fully explain the reported data. Strangers who are members of second groups likely do make back-end copies on the internet, and redundancy theories are based on the assumption that a modality of regulation other than copyright is tamping down on such copies.<sup>270</sup> The necessity of a redundancy theory, in turn, bolsters the conclusion that Professors Silbey, Subotnik, and DiCola reach, identifying costly enforcement as a causal contributor to their data.<sup>271</sup>

#### IV. CONCLUSION

The doctrine of copyright law may not change as markets for the creative goods that it protects tilt toward customization, but the reason why copyright has private economic value and the role that copyright plays in fostering creative production certainly do. This Article focuses on ways in which copyright's exclusive rights do different work in markets that tilt strongly toward customized creativity than they do in markets for commoditized creativity.

In markets for commoditized creativity, the market-buffer theory captures why copyright has private value and why it generates a social benefit. Copyright allows authors to tamp down on copying by strangers and buffers authors from competition in the market for copies. In turn, this market buffer helps to overcome a public goods or collective action problem that threatens to lead to an underproduction of creative works.

However, when markets tilt strongly toward customized creativity due to intense and diverse preferences among consumers, copyright's private and social value must be found elsewhere. Here, the customization effect emerges. Intense and diverse preferences mean that there is no demand among strangers for back-end copies. Copyright becomes irrelevant under the market-buffer theory because copyright cannot meaningfully buffer authors from competition in a nonexistent market. Furthermore, there is no collective action problem to solve as authors rely entirely on upfront fees from clients for customization services and front-end copies to fund creative production. Yet, the customization effect does not mean that copyright is entirely irrelevant. It remains relevant—and perhaps even gains greater relevance—under the less frequently discussed transactional theories of copyright and the theory of the firm. It can help authors and their clients to structure the author–

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270. *See supra* notes 257–58 and accompanying text.

271. The only other option for copyright nonuse is a communality norm, and the existence of such a norm is suspect among the second-group members. Most of the relevant strangers who are making unauthorized, back-end copies fall far outside of the professional circle of freelance photographers. *Cf.* ELLICKSON, *supra* note 137, at 177–82 (noting that norms are often specific to communities).

client relationship that is the backbone of customized creative production, and it can reduce the costs of team-based authorship.

This Article also looks for evidence of the customization effect in action in contemporary markets. The patterns of copyright use and value in two industries that already tilt strongly toward customization, namely nonresidential architecture and freelance photography, are consistent with the shift in copyright's normative justification that the customization effect is expected to produce. However, other theories of copyright irrelevance also likely help to shape these patterns.