



JIPEL

NYU Journal of Intellectual Property
& Entertainment Law

ARTICLES

Is the Copyright Act Inconsistent with the Law of Employee Invention Assignment
Contracts?*Charles Tait Graves*

“Prime Health” and the Regulation of Hybrid Healthcare.....*Nicolas P. Terry*

NOTES

Analyzing *Aalmuhammed v. Lee* in the Context of
Entertainment Industry Employment.....*Jennifer Yamin*

Using the Economic Espionage Act to Protect
Trade Secrets in Baseball.....*Brette Trost*

NEW YORK UNIVERSITY
JOURNAL OF INTELLECTUAL PROPERTY
& ENTERTAINMENT LAW

VOLUME 8

NUMBER 1

CONTENTS

Preface..... v

ARTICLES

Is the Copyright Act Inconsistent with the Law of Employee Invention Assignment
Contracts? 1
Charles Tait Graves

“Prime Health” and the Regulation of Hybrid Healthcare..... 42
Nicolas P. Terry

NOTES

Analyzing *Aalmuhammed v. Lee* in the Context of Entertainment Industry
Employment 93
Jennifer Yamin

Using the Economic Espionage Act to Protect Trade Secrets in Baseball 128
Brette Trost



Statement of Purpose

Consistent with its unique development, The New York University Journal of Intellectual Property & Entertainment Law (JIPEL) is a nonpartisan periodical specializing in the analysis of timely and cutting-edge topics in the world of intellectual property and entertainment law. As NYU's first online-only journal, JIPEL also provides an opportunity for discourse through comments from all of its readers. There are no subscriptions, or subscription fees; in keeping with the open-access and free discourse goals of the students responsible for JIPEL's existence, the content is available for free to anyone interested in intellectual property and entertainment law.

The *New York University Journal of Intellectual Property & Entertainment Law* is published two times per year at the New York University School of Law, 139 MacDougal Street, New York, New York, 10012. In keeping with the Journal's open access and free discourse goals subscriptions are free of charge and can be accessed via www.jipel.law.nyu.edu. Inquiries may be made via telephone (212-998-6101) or electronic mail (law.jipel@gmail.com).

The Journal invites authors to submit pieces for publication consideration. Footnotes and citations should follow the rules set forth in the latest edition of *The Bluebook A Uniform System of Citation*. All pieces submitted become the property of the Journal. We review submissions through ExpressO Bepress (<http://law.bepress.com/expresso/>) and through electronic mail (submissions.jipel@gmail.com).

All works copyright © 2018 by the author, except when otherwise expressly indicated. For permission to reprint a piece or any portion thereof, please contact the journal in writing. Except as otherwise provided, the author of each work in this issue has granted permission for copies of that article to be made for classroom use, provided that (1) copies are distributed to students free of cost, (2) the author and the Journal are identified on each copy, and (3) proper notice of copyright is affixed to each copy.

A nonpartisan periodical, the Journal is committed to presenting diverse views on intellectual property and entertainment law. Accordingly, the opinions and affiliations of the authors presented herein do not necessarily reflect those of the Journal members.

The Journal is also available on WESTLAW, LEXIS-NEXIS and HeinOnline.

NEW YORK UNIVERSITY

JOURNAL OF INTELLECTUAL PROPERTY &
ENTERTAINMENT LAW

VOL. 8 BOARD OF EDITORS – ACADEMIC YEAR 2018-2019

Editor-In-Chief

PHILIP SIMON

Senior Articles Editor

MADELINE BYRD

Managing Editors

ALEXANDER KOSTER

BRETTE TROST

Senior Editors

RACHEL BROOKE

JARED GREENFIELD

NICHOLAS LO

ERIC LOVERRO

Senior Notes Editor

JAMES YANG

Executive Editor

DANIEL EMOFF

Senior Web Editor

MICHAEL DeSTEFANO

Staff Editors

ENOCH AJAYI

FLORE BRUNETTI

GABRIEL B. FERRANTE

PAIGE GEIER

STEPHEN GRAY

SHAINA HOURIZADEH

HANA MONICA HUTABARAT

ZHIKUN JIANG

JOSH KIM

KENNETH KIM

SARAH SUE LANDAU

KATHRYN LEICHT

YANG LI

DANIEL LIFTON

SAMUEL LIM

TALIN MARKARIAN

JAMES MERESMAN

ELINA MILSHTAIN

ROBERT MINN

PEDRAAM MIRZANIAN

AIDAN MURRAY

DANIEL PAXTON

CALEIGH PERELMAN

JOSHUA PERKINS

MAGGIE A. REINFELD

GERALD O SHALAM

MICHELLE SHAMOULIAN

ALEC SHAPIRO

MARYAM SOFIA SONBOLI

CHRISTINE SONG

OREN STEVENS

WHITNEY THOMPSON

NICHOLAS G VINCENT

JACKIE ZACHARIADIS

LAURA ZHU

Faculty Advisors

AMY ADLER

BARTON BEEBE

PREFACE

Legal journals are sometimes criticized as disconnected from the real world or labeled sounding chambers for academics. Like many of our favorite publications, our fall issue stands in stark contrast to this characterization. In what follows, you will find four discussions of real, pressing legal issues and practical legal solutions.

First, Professor Charles Tait Graves analyzes a striking disparity between the law of invention assignment contracts and the work for hire doctrine under the Copyright Act. To illustrate the divergence of the two areas of law, Professor Graves provides readers with a comprehensive legal background, a survey of the cases that have considered the conflict, and an enlightening discussion of the policy implications at play when the areas overlap. This article is the first of a three-part series in which Professor Graves calling attention to under-analyzed areas of intellectual property law that impact employee mobility.

Next, Professor Nicholas P. Terry invites readers to consider the future of healthcare given Amazon, Berkshire Hathaway, and JPMorgan Chase & Co.'s recently announced joint venture. Professor Terry begins with a case study of the expressed intentions and the past habits of a key member of the venture, Amazon. He then uses lessons from the case study to project a likely future of the healthcare venture before launching into a discussion of the possibilities of the venture, giving color to what some have hailed as the digital revolution of healthcare. Professor Terry concludes with an important discussion of existing regulatory structures as well as how hybrid healthcare should be regulated in the future.

Diving back into the world of copyright and authorship, Jennifer Yamin provides a critical analysis of how courts have applied the *Aalmuhammed* joint authorship test in the entertainment industry. Via an analysis of cases using the authorship test applied to screenplays, songs, and music videos, Ms. Yamin demonstrates the shortcomings of using the *Aalmuhammed* framework as a one-size-fits-all test. Ms. Yamin concludes by providing a starting point for reforming our evaluation of joint authorship.

Finally, Brette Trost reminds readers of the importance of intellectual property law. Using the 2016 Christopher Correa Major League Baseball scandal as a tangible example, Ms. Trost provides a riveting analysis of how the Economic Espionage Act can be used to prevent trade secret theft in professional sports. She further provides a compelling argument for why the Economic Espionage Act (that is, trade secret theft), rather than the Computer Fraud and Abuse Act, is the appropriate avenue for prosecuting behavior such as Correa's, especially given the fluid nature of the talent pool in major league sports.

I hope that you find this issue both captivating and didactic, yet far from an academic sounding chamber. On behalf of the 2018-2019 *JIPeL* editorial board, thank you for reading.

Sincerely,

Philip Simon
Editor-in-Chief
NYU Journal of Intellectual Property & Entertainment Law

NEW YORK UNIVERSITY
JOURNAL OF INTELLECTUAL PROPERTY AND ENTERTAINMENT LAW

VOLUME 8

FALL 2018

NUMBER 1

IS THE COPYRIGHT ACT INCONSISTENT WITH THE LAW OF EMPLOYEE
INVENTION ASSIGNMENT CONTRACTS?

CHARLES TAIT GRAVES*

*There is a latent conflict between the law of employee invention assignment contracts and the Copyright Act's work for hire doctrine. Countless employees sign contracts specifying that, in most cases, the employer will own trade secrets and patentable inventions, as well as copyrightable works. When employees create in the workplace, these rules are largely uncontroversial. But when employees create something outside the workplace for a new venture, there can be a conflict between these two areas of intellectual property law. The work for hire doctrine is more favorable to employee-ownership than the law of invention assignment contracts. As a perhaps surprising result, where an employee's outside-the-workplace creation might constitute both a trade secret and a copyrightable work, these two ownership tests can point in opposite directions. Further, when an employee prevails as to copyright ownership, there are good reasons why that result precludes an employer's conflicting claim to trade secret ownership in the same work. This friction on the boundaries of two areas of intellectual property law has important policy ramifications for employees who create intellectual property on the side, while planning for their next job. ***

* Partner, Wilson Sonsini Goodrich & Rosati, San Francisco, and Adjunct Faculty, University of California, Hastings College of the Law.

** This essay is the first in a three-part series addressing under-analyzed areas of intellectual property and employee mobility law which impact creative employees when changing jobs. Departing employees can face a tangled body of contract, tort, and statutory claims brought by former employers. Academics and practitioners have provided little commentary about some of these overlooked areas of law. This relative inattention is surprising given the important policy concerns so often at stake in mobility disputes.

INTRODUCTION	2
I. SETTING THE STAGE: PRE-DEPARTURE CREATIVE ACTIVITIES	5
II. INVENTION ASSIGNMENT CONTRACTS AND EMPLOYEE-EMPLOYER CONFLICTS.....	6
A. <i>State Invention Assignment Statutes and Default Common Law Rules</i>	8
B. <i>How Invention Assignment Contracts Favor the Employer</i>	13
C. <i>The Case Law on Invention Assignment Contracts is One-Sided</i>	19
III. THE WORK FOR HIRE DOCTRINE AND EMPLOYEE-EMPLOYER CONFLICTS	22
A. <i>Work for Hire Law and the Restatement of Agency</i>	22
B. <i>The Scope of Employment Case Law is More Balanced</i>	30
IV. IS WORK FOR HIRE LAW INCONSISTENT WITH INVENTION ASSIGNMENT LAW?.....	36
CONCLUSION – THE USE-VALUE OF THE SCOPE OF EMPLOYMENT TEST	40

INTRODUCTION

This article considers the conflict between two commonplace but little-discussed areas of intellectual property law: the law of invention assignment contracts and the law of works for hire under the Copyright Act.

Both can encompass the same subject matter. Both offer tests to allocate ownership between an employer and an employee when the employee creates something. However, sometimes these tests are in tension, if not outright conflict. This conflict is particularly apparent in the context of employee mobility disputes; i.e. those that arise when someone creates intellectual property on the side, outside the workplace, before quitting and leaving for his or her next opportunity.

Employees planning a new venture face a tangle of potential tort, contract, and statutory claims brought by employers seeking to halt competition or to claim ownership of the departing employee's ideas. Two such claims center on whether the former employer can claim a property right in ideas or work product that a departing employee created offsite, on his or her own time. This essay is the first to compare these related areas of law, tease out the potential conflicts in their tests for employee ownership, and identify the reasons one offers better protection than the other for departing employees.

The law of invention assignment contracts and the work for hire law under the Copyright Act provide the basis for two claims employers can bring to seek ownership of intellectual property an employee has created, whether at the workplace or outside the workplace. Both areas of law start with contract terms that purport to govern whether an employer or an employee owns intellectual property that an employee creates. One applies to trade secrets and patentable inventions. The other applies to copyrightable works of expression. The former, the law of invention assignment agreements, is largely a matter of state contract and state statutory law. The latter, the work for hire doctrine, is largely a matter of federal copyright law. Through these extra-contractual sources, both provide rules that allocate ownership of employee work product, including creative work done entirely apart from the employer's business. Thus, while many may believe that ownership of employee-created work product is a straightforward matter of contract,

that is not always the case when we focus on creative materials an employee has prepared outside the company, for purposes outside the company.

There is a marked contrast between these dueling areas of law. Invention assignment law is highly one-sided, favoring the employer, while work for hire case law is more balanced, and employees often prevail in establishing ownership of their copyrighted creations. This difference arises because the Copyright Act focuses on what an employee was hired to do and what he or she intended by creating the work at issue. The law of invention assignment contracts, by contrast, treats the employee's role and mental state as irrelevant and instead asks whether the created work is related in some manner to the employer's business – a broad definition the boundaries of which remain unclear.

Increasing this tension, the subject matter of these doctrines can overlap, which means that the law can dictate different ownership outcomes for the same employee work product. For example, whenever an employee creates a work of expression that is simultaneously a potential trade secret (such as software code), the law of invention assignment contracts and the law of works for hire are both in play. Ownership results may differ depending on the set of tests used to adjudicate a particular dispute. This article will analyze cases where the outcome might have differed if the court and litigants had analyzed a different body of law.

Where there is a conflict, copyright ownership appears to override a conflicting ownership claim to trade secret rights in the same work product. Specifically, where an employee prevails and a copyrightable work is not the employer's work for hire, the employer likely cannot win by asserting trade secret rights. Because a copyright owner can disclose and publish the work at will, trade secret rights – which require secrecy – would be precluded from the outset. Thus, from a departing employee's perspective, establishing copyright ownership may be paramount. That may well be better public policy given the potential for overreach in the law of invention assignment agreements.

To parse these areas of law which could govern ownership rights in the same subject matter, this article will explore both areas of law in depth, with a survey of virtually all of the available case law on ownership disputes between employers and employees. Providing this survey may help address issues that largely remain unexplored by courts and commentators, even those who are sympathetic to the obstacles departing employees can face.¹

Section I explains that when employees create outside-the-workplace material for a future new venture, two categories of intellectual property law are relevant: the law of invention assignment contracts and work for hire law under the Copyright Act. This article will focus on employees

¹ One powerful, if rare, example of the sort of thoroughgoing critique that is all too often lacking is found in Orly Lobel, *The New Cognitive Property: Human Capital Law and the Reach of Intellectual Property*, 93 TEX. L. REV. 789, 792-93, 798-99, 801-03, 813-15 (2015) (tying the overbreadth of employee invention assignment agreements – noting, among other things, post-employment holdover clauses – to broader concerns over employer overreach and resulting harms to mobility and growth of new enterprises).

acting in good faith to create for a potential new company, in order to set the stage for the latent clash between these doctrines.

Section II provides a historical overview of the development of invention assignment law. This runs from early common law rules and their important exceptions, to the modern era, where the combination of state invention assignment statutes and commonplace contract terms have substantially modified the common law. Setting up the conflict between the law of invention assignment contracts and work for hire law, this section also demonstrates how invention assignment case law significantly favors employers over employees.

Section III sets forth a contrasting body of law which also addresses employees' creation of intellectual property, with sometimes different outcomes for disputes between employers and employee: work for hire law and its three-part scope of employment analysis. Gathering virtually every reported case, this section shows that work for hire law is more balanced than invention assignment law in weighing the interests of employers and employees.

With this divergence in mind, Section IV explains how both of these categories of intellectual property law can overlap in the same employee-created material. This is where the conflict between these doctrines arises – where applying one test instead of the other could lead to a different outcome in a dispute over whether the employer or the employee owns what the employee has created. This section also provides a tentative solution. Where the employee owns the copyright in a work under the work for hire doctrine, and therefore has a right to publish the work, the employer's competing invention assignment claim should fail, because it is based on trade secrecy. As the Fourth Circuit held in a 1994 decision,² a decision which may provide the key to resolving the latent conflict between these areas of law, a competing trade secret claim cannot exist where a copyright-owner has the right to publish (and thus to disclose) the work at issue.

Finally, Section V examines the public policy implications of the clash between invention assignment law and work for hire law. In the context where an employee operating in good faith creates material outside the workplace that has only an attenuated connection to the employer's business, the more balanced regime seen under the work for hire doctrine provides better protection for employees forming new ventures and thus better promotes innovation. Asserting the work for hire doctrine where copyrightable material is at stake may prevent overreaching by employers where their ownership claims are weakest.

Employees around the country are subject to contracts which grant their employers ownership in workplace creations – and sometimes also outside-the-workplace creations. Given the importance of these questions to mobile employees and those who wish to form new ventures, this essay looks to ask new questions about this corner of the law.

² *Avtec Sys. v. Peiffer*, 21 F.3d 568 (4th Cir. 1994).

I

SETTING THE STAGE: PRE-DEPARTURE CREATIVE ACTIVITIES

This essay focuses on a narrow period of time and the intellectual property laws that govern that moment. To set the stage for highlighting a conflict between two areas of intellectual property law, we focus on the point when an employee begins to think about changing jobs, perhaps starting his or her own new venture, or when an employee simply creates work on the side, for purposes not yet known. We consider the situation in which the employee does not misuse the employer's trade secrets, the employee works on the proverbial nights and weekends outside the office, and the employee is not attempting to create material that is related to the employer's business.³

Many people who would like to quit and start a new venture understandably do not want to resign until a concrete plan is more or less in place. Sometimes that means weeks or months of planning with other nascent co-founders or slowly seeking funding. If the employee creates no intellectual property before leaving, the only legal questions at stake are those of fiduciary duty, the duty of loyalty, and making preparations for the next job.⁴

Sometimes, however, pre-departure planning also means that one or more employees creates new ideas, and commits those ideas to writing or to software code. Assuming the ideas or expression are original, novel, or not generally known in the relevant industry, he or she has probably created some form of intellectual property. So the question arises: who owns that intellectual property – the current employer or the employee who created it?

Events such as these are hard to capture for analysis. They occur in secret, because the employee fears that discovery will result in immediate termination.⁵ Further, where attorneys become involved in counseling departing employees, the attorney-client privilege means that practitioners are not free to discuss particular situations in a public setting. Even where the employer later discovers the pre-departure preparations and sends a cease-and-desist letter, many potential lawsuits are averted. Probably only a small fraction of such cases result in lawsuits, and even fewer court rulings are available in public databases.

To delve into the ownership disputes that may arise in these contexts, we will put aside disputes where departing employees misuse employer trade secrets, or create work product that overtly

³ In general, and while definitions vary slightly from state to state, a trade secret is non-public business information valuable to competitors that the owner has protected with reasonable security measures. *E.g.*, Defend Trade Secrets Act of 2016 § 2(b)(1), Pub. L. No. 114-153, 18 U.S.C. § 1839(3), 130 Stat. 376, 380.

⁴ Disputes over these so-called “preparations to compete” will be the subject of the next essay in this series.

⁵ Even if preparations to compete are legal, an employer can terminate an employee found to be engaging in such activities. *See Fowler v. Varian Assocs., Inc.*, 241 Cal. Rptr. 539, 544 (Ct. App. 1987) (granting summary judgment for employer where employee brought wrongful termination claim after being fired for making preparations to leave and compete).

relates to (or even competes directly with) the business of the employer. Our focus will be situations where the employee intends to launch a different, non-overlapping business, and creates new intellectual property with that end in mind. That is, we will assume the departing employee's good faith, and analyze who might own such work product when both the Copyright Act and the law of invention assignment contracts could encompass the work at issue. We begin with invention assignment law.⁶

II

INVENTION ASSIGNMENT CONTRACTS AND EMPLOYEE-EMPLOYER CONFLICTS

In order to understand how invention assignment law and work for hire law are sometimes in conflict, we will first examine the historical development of invention assignment law and then turn to the body of case law, which tends to significantly favor the employer over the employee.

Invention assignment agreements are commonplace in employment contracts. They reverse the historical common law presumption that an employee owns what he or she invents or develops, and they broaden a longstanding common law exception, which allows for employer ownership when the employee was hired to invent the type of intellectual property he or she then created.⁷ Terms in invention assignment contracts address ownership of trade secrets and patentable inventions, but not copyrights.⁸ Although these agreements allow for employee ownership in certain contexts, by and large they substantially favor employers.⁹

⁶ Readers may wonder why this essay refers to employers' trade secret rights through invention assignment agreements, rather than patent rights. After all, and as the very phrase "invention assignment" suggests, patents are what scholars and practitioners likely think of first, if not exclusively, when the subject of invention assignment arises. But this misses an important timing point: when an employee conceives a patentable invention, it first exists as intellectual property in the form of a trade secret, not a patent. If the employer chooses to pursue a patent application, that election comes after the point of initial, automatic assignment. That is why this essay points to a clash between competing copyright and trade secret rights in the same work product.

⁷ While ownership of an invention would otherwise vest in the inventor, the standard rule and practice is that an employee can contract ownership away through an invention assignment agreement. *See* *Beech Aircraft Corp. v. EDO Corp.*, 990 F.2d 1237, 1248 (Fed. Cir. 1993); *Access Cardiosystems, Inc. v. Fincke* (*In re* *Access Cardiosystems, Inc.*), 340 B.R. 127, 147 (Bankr. D. Mass. 2006) (explaining rules). Thus, "an employer owns an employee's invention if the employee is a party to an express contract to that effect." *Banks v. Unisys Corp.*, 228 F.3d 1357, 1359 (Fed. Cir. 2000); *Grove v. Grove Valve & Regulator Co.*, 84 Cal. Rptr. 300, 303-04 (Ct. App. 1970) (early case finding that employer owned improvements to various inventions in enforcing terms of employee invention assignment agreement signed in 1959).

⁸ Although such contracts assign ownership of rights including those governed by federal law – *i.e.*, patents, but also trade secrets given the 2016 Defend Trade Secrets Act – their interpretation is largely, but not entirely a matter of state law. Until 2008, the interpretation was solely one of state law. *See* *Affymetrix, Inc. v. Illumina, Inc.*, 446 F. Supp. 2d 292, 296 (D. Del.

While it is hard to find a definitive source pinpointing when employers began using written invention assignment contracts to alter default common law ownership rules, the practice certainly dates back many decades. In one 1938 California case, for example, a court stated that “[a]n employee’s agreement in the contract of employment to assign patents to his employer is specifically enforceable as to patents, clearly within its terms, as strictly construed against the employer.”¹⁰

2006) (applying California law; “The proper construction of assignment agreements is a matter of state contract law.”) (citing *Minco, Inc. v. Combustion Eng’g, Inc.*, 95 F.3d 1109, 1117 (Fed. Cir. 1996)). This default rule was modified in 2008, when the Federal Circuit ruled that, at least as to the question of whether an assignment contract creates an automatic future conveyance of inventions not yet in existence – which is accomplished by the inclusion of the magic words “hereby assign” – is one of federal law. *See DDB Techs., L.L.C. v. MLB Advanced Media, L.P.*, 517 F.3d 1284, 1289-90 (Fed. Cir. 2008). DDB’s reasoning was based on federal courts’ powers as to “the question of standing in patent cases.” *Id.* *See also* *Intellectual Ventures I LLC v. Erie Indem. Co.*, 850 F.3d 1315, 1320 n.1 (Fed. Cir. 2017) (stating rule). The decision was notably silent on what law would govern the future conveyance of state law trade secret rights in an employee creation.

⁹ *See* discussion and cases *infra* Section B.

¹⁰ *Hercules Glue Co., Ltd. v. Littooy*, 76 P.2d 700, 701 (Cal. Dist. Ct. App. 1938) (enforcing employee invention assignment contract in favor of employer: “By the terms of this contract, appellant agreed that he would devote his entire time, knowledge, skill, best efforts, and services to the work of respondent as it might direct; that all patents, processes, or formulas, pertaining to spreader, which he invented, developed or perfected during his original and present employment, should be the property of respondent, and that he would, on demand, execute any assignments, transfers or other instruments necessary to perfect respondent’s title thereto. He further agreed that he would not, during its life or subsequently, divulge to any person, or use for his own benefit, any secret processes or formulas invented, developed, or perfected by him or respondent between October 1, 1924, and the termination of the agreement.”). Other early cases involving written contracts include: *Kober v. United States*, 170 F.2d 590, 592, 594 (4th Cir. 1948) (finding that an employment agreement with a U.S. government employer providing for “the complete assignment” of inventions made by the employee was a “reasonable agreement entered into for a lawful and proper purpose” and holding that inventions made by an engineer subject to this agreement therefore belonged to the government-employer); *Crown Cork & Seal Co., v. Fankhanel*, 49 F. Supp. 611, 613, 615 (D. Md. 1943) (construing and finding enforceable an invention assignment agreement that required the employee to assign rights over to the employer for “[a]ll inventions and discoveries which I make while in the employ of said Company, along the lines of its general work, constituting improvements both in its then existing products and methods of manufacture, or otherwise, shall become its exclusive property,” and holding that the employment agreement was valid and enforceable).

A. State Invention Assignment Statutes and Default Common Law Rules

In most states, invention assignment contracts are governed by common law, though there are not many reported cases in jurisdictions outside of California. However, eight states, beginning with Minnesota in 1977, have enacted similar statutes that seek to lay out boundaries for when employers can obtain ownership of employee creations, all of which favor the employer.¹¹

California's version is illustrative.¹² While awkwardly phrased, it provides six different ways in which the employer can own the employee's creation: (1) use of the employer's trade secrets; (2) use of the employer's time; (3) use of the employer's resources; (4) the creation is related to the employer's current business; (5) the creation is related to the employer's "demonstrably anticipated" research and development; and (6) the creation results from the employee's work for the employer.¹³ These possibilities are disjunctive, meaning that the employer need only demonstrate one of them to prevail.

State statutes regulating invention assignment agreements are not entirely identical. For example, California's version requires that employers provide notice to the employee, and also allows employers to require that employees disclose all new creations – even if outside the scope of contractual ownership terms – for an ownership review "in confidence."¹⁴ Washington does not require that the employer treat employee disclosures in confidence, but gives the employee a right to disclose the creation to "the department of employment security."¹⁵ Both California and Washington put the burden of proof on the employee to show that the creation is outside the scope of employer ownership.¹⁶

A ninth state, Nevada, enacted a statute relating to invention assignment agreements later than the states discussed above, in 2001, with a different aim.¹⁷ In what was apparently seen as a bid to improve the business environment for technology companies in the state, the statute renders an invention assignment contract unnecessary and broadens the scope of employer ownership compared to the common law. It states: "Except as otherwise provided by express written agreement, an employer is the sole owner of any patentable invention or trade secret developed

¹¹ See CAL. LAB. CODE §§ 2870-2872 (West 1979); DEL. CODE ANN. tit. 19, § 805 (1984); 765 ILL. COMP. STAT. 1060 / 2 (1983); KAN. STAT. ANN. 44-130 (West 1986); MINN. STAT. ANN. § 181.78 (West 1977); N.C. GEN. STAT. §§ 66-57.1-.2 (1981); UTAH CODE ANN. § 34-39-3 (West 1989); WASH. REV. CODE ANN. §§ 49.44.140, .150 (West 1979). Based on this author's experience, companies often mimic the structure of these state statutes in employment agreements, even for employees residing in other states. As a result, these eight statutes have great influence beyond their home jurisdictions.

¹² See CAL. LAB. CODE §§ 2870-72 (West 1979).

¹³ *Id.* § 2870. The "results from" clause is unclear, but its interpretation has not yet been the subject of a published decision.

¹⁴ *Id.* § 2871.

¹⁵ WASH. REV. CODE ANN. § 49.44.150 (West 1979).

¹⁶ See *id.*; LAB. § 2872.

¹⁷ See NEV. REV. STAT. ANN. § 600.500 (West 2001).

by his or her employee during the course and scope of the employment that relates directly to work performed during the course and scope of the employment.”¹⁸ As one commentator noted at the time, this sort of one-sided regime is unlikely to foster the birth of new technology ventures in Nevada.¹⁹

State law invention assignment agreements have been the subject of a fair amount of commentary, albeit mostly limited to the question of whether the default rules granting employers ownership of workplace inventions fairly compensate employee-inventors in a way that best promotes innovation equitably.²⁰ Some commentators have addressed other issues about

¹⁸ *Id.*

¹⁹ See Mary LaFrance, *Nevada's Employee Inventions Statute: Novel, Nonobvious, and Patently Wrong*, 3 NEV. L.J. 88 (2002) (well-done dissection of the then-new state statute, noting its departure from the common law, contrast with other state statutes, and contrast with the work for hire rules; predicting the statute would not, as apparently intended, encourage the growth of technology companies in Nevada).

²⁰ There is a cottage industry of notes and law review articles positing that if employees were given greater compensation for, or some ownership stake in, inventions created for the employer in the workplace, innovation would increase. See Shlomit Yanisky Ravid, *Rethinking Innovation and Productivity Within the Workplace Amidst Economic Uncertainty*, 24 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 143 (2013) (arguing that employees would have a greater incentive to invent if they retained a greater interest in – and received financial compensation for – workplace inventions); Ann Bartow, *Inventors of the World, Unite! A Call for Collective Action by Employee-Inventors*, 37 SANTA CLARA L. REV., 673, 677 (1997) (advocating that employees refuse to sign invention assignment agreements and instead try to own workplace inventions themselves); Evelyn D. Pisegna-Cook, *Ownership Rights of Employee Inventions: The Role of Preinvention Assignment Agreements and State Statutes*, 2 U. BALT. INTELL. PROP. L.J. 163, 185 (1994) (general survey of common law and state statutes; concluding by advocating additional compensation for employee-inventors and greater adoption of statutes to regulate invention assignment contracts); Steven Cherenksy, Note, *A Penny for Their Thoughts: Employee-Inventors, Preinvention Assignment Agreements, Property, and Personhood*, 81 CAL. L. REV. 595 (1993) (in an argument premised on a Hegelian-inflected notion of personhood and property rights, advocating a greater property allocation to employees for workplace inventions); Henrik D. Parker, Note, *Reform for Rights of Employed Inventors*, 57 S. CAL. L. REV. 603, 624-25 (1984) (arguing that compensation schemes for workplace inventions would increase innovation); William P. Hovell, Note, *Patent Ownership: An Employer's Rights to His Employee's Invention*, 58 NOTRE DAME L. REV. 863, 887-88 (1983) (advocating that employee-patent inventors receive a “reverse shop right” “to use any patent assigned to his employer”). All are speculative, and some rest on seemingly needless concepts of Hegelian personhood and the like. As much as I tend to favor departing employees, this line of articles is frustrating. Many seem to imagine that workplace inventions are created by a sole inventor rather than by teams, none contemplate the quagmires that could result in bickering over who owns what within the office, and the philosophical reference points seem arbitrary.

the reach of invention assignment agreements which provide helpful background for the questions discussed in this article.²¹

Contracts between employers and employees dictating ownership of workplace creations arose because the default common law rule provided a narrower path to employer ownership. Specifically, case law dating to the nineteenth century provides that an employee owns his or her inventions, even when it is conceived during the term of employment,²² subject to an important but narrow exception. Those who were “hired to invent” the same type of work product they then duly created owed an automatic assignment duty to the employer, vesting title in the company. These rules developed from early Supreme Court decisions.²³ In turn, the common law provided

I consider all of these fully answered by Robert P. Merges, *The Law and Economics of Employee Inventions*, 13 HARV. J.L. & TECH. 1, 14-18 (1999) (arguing that the current employer-ownership regime is best calibrated to avoid problems such as disruptive employee “holdups”: “The employees could hold up the firm for the full value of its investment.”). Merges notes the seemingly obvious problems that would arise in scenarios where employees share in ownership of inventions made for the employer’s benefit. This essay is by contrast focused on outside-the-workplace creations by employees planning their next venture which have no connection, or only some tenuous connection, to their present employer’s business.

²¹ Articles which address topics other than whether assigning workplace inventions to the employer is equitable include: Parker A. Howell, *Whose Invention is it Anyway? Employee Invention-Assignment Agreements and Their Limits*, 8 WASH. J.L. TECH. & ARTS 79 (2012) (practitioner-oriented overview of state statutes and a sampling of case law); Joshua L. Simmons, *Inventions Made for Hire*, 2 N.Y.U. J. INTELL. PROP. & ENT. L. 1, 49 (2012) (arguing that the law of employee-patent assignments contains too many procedural stumbling blocks and advocating that patent law be amended to match the work for hire terms of the Copyright Act); Donald J. Ying, *A Comparative Study of the Treatment of Employee Inventions, Pre-Invention Assignment Agreements, and Software Rights*, 10 U. PA. J. BUS. & EMP. L. 763 (2008) (survey of invention assignment laws in the United States and other countries); Michael R. Mattioli, *The Impact of Open Source on Pre-Invention Assignment Contracts*, 9 U. PA. J. LAB. & EMP. L. 207, 228-34 (2006) (article on what might happen if an employee creates a patentable invention while contributing to an open source project).

²² See generally *Solomons v. United States*, 137 U.S. 342, 346 (1890) (“[W]hatever invention [an inventor] may thus conceive and perfect is his individual property.”); *Gayler v. Wilder*, 51 U.S. 477, 478–93 (1851) (“But the discoverer of a new and useful improvement is vested by law with an inchoate right to its exclusive use, which he may perfect and make absolute by proceeding in the manner which the law requires.” The case involved an assignment by the inventor to a businessperson.).

²³ “[U]nless there is an agreement to the contrary, an employer does not have rights in an invention ‘which is the original conception of the employee alone.’” *Bd. of Trs. of the Leland Stanford Junior Univ. v. Roche Molecular Sys.*, 563 U.S. 776, 786 (2011) (quoting *United States v. Dubilier Condenser Corp.*, 289 U.S. 178, 189 (1933)). “In most circumstances, an inventor must expressly grant his rights in an invention to his employer if the employer is to obtain those rights” because “the respective rights and obligations of employer and employee, touching an

that if an employee who was not hired to invent nonetheless created an invention using the employer's time or resources, the employee retained ownership, but the employer received a permanent, royalty-free license known as a "shop right" to practice the invention. Historical case law on the hired-to-invent exception and the shop right rule – that is, before the age of ubiquitous written invention assignment agreements and state statutes governing them – were often fact-

invention conceived by the latter, spring from the contract of employment." *Id.* at 786. (quoting *Dubilier*, 289 U.S. at 187). Thus, the Court has "rejected the idea that mere employment is sufficient to vest title to an employee's invention in the employer." *Id.* at 789. However, there is an exception for employment situations where the employee has "only produced that which he was employed to invent." *Dubilier*, 289 U.S. at 187. This "hired to invent" exception exists because the employee's invention "is the precise subject of the contract of employment. A term of the agreement necessarily is that what he paid to produce belongs to his paymaster." *Id.* at 187. "On the other hand, if the employment be general, albeit it cover a field of labor and effort in the performance of which the employee conceived the invention for which he obtained a patent, the contract is not so broadly construed as to require an assignment of the patent." *Id.* The Supreme Court first applied the hired to invent exception in a 1924 case, *Standard Parts Co. v. Peck*. In that case, the defendant was employed under a contract to "devote his time to the development of a process and machinery for the production of the front spring now used on the product of the Ford Motor Company." *Standard Parts Co. v. Peck*, 264 U.S. 52, 59 (1924). After inventing the specific process and machinery contemplated by his employment contract, the defendant secured a patent on the aforementioned technology which he refused to convey to the plaintiff. Finding that the invention of the specific patent at issue was the "object and effect" of the defendant's employment contract, and that in inventing the technology at issue, the defendant was "doing nothing more than he was engaged to do and paid for doing," the Court held that the patent belonged to the plaintiff. *Id.* at 59-60.

For other early cases, see *Houghton v. United States*, 23 F.2d 386, 389 (4th Cir. 1928) (Surgeon General appointed government employees to a board whose purpose was to develop a safer fumigant, and thus the defendant "did merely that which he was being paid his salary to do," so there could be "no doubt" that his invention belonged to the government.); *Magnetic Mfg. Co. v. Dings Magnetic Separator Co.*, 16 F.2d 739, 741 (7th Cir. 1926) (on contested facts, finding that employee was hired to invent from his own conduct, where he had promptly assigned two prior inventions, and thus owed an assignment duty even as to an invention that related to only a peripheral part of his employment duties). An employer might overcome hired-to-invent issues where a manager came up with the invention, and the employee claiming ownership was merely the one who reduced it to practice. In one early California case, the court distinguished between an employer who had the "general idea of a machine" and an employee who implemented the idea – even though the employee was the signatory on the patent application – in granting ownership to the employer in an improvement for movie studio lighting. *Famous Players-Lasky Corp. v. Ewing*, 194 P. 65, 66 (Cal. Dist. Ct. App. 1920).

intensive.²⁴ Even in more recent cases, these common law rules still apply in situations where, for whatever reason, there was no written contract.²⁵

²⁴ See, e.g., *Fish v. Air-O-Fan Prods. Corp.*, 285 F.2d 208, 210-11 (9th Cir. 1960) (finding implied in fact assignment contract where evidence showed employee was hired to invent); *Consol. Vultee Aircraft Corp. v. Maurice A. Garbell, Inc.*, 204 F.2d 946, 949 (9th Cir. 1953) (although employee had conceived invention before joining employer, he had used employer's resources to perfect it, and thus employer had shop right to manufacture, use, and sell "airplanes embodying" the invention); *Aero Bolt & Screw Co. v. Iaia*, 5 Cal. Rptr. 53, 58 (Cal. Ct. App. 1960) (employee retained ownership of invention with no shop right for employer where, among other things, trial court found that employee "on his own time, and at his own expense, designed and developed the [invention]; that he paid all of the development costs out of his own pocket"); *Zahler v. Columbia Pictures Corp.*, 4 Cal. Rptr. 612, 617 (Ct. App. 1960) (where employee was hired to create background music, court applied a version of the hired-to-invent doctrine to grant employer performance rights; "Where an employee creates something as part of his duties under his employment, the thing created is the property of his employer."); *Banner Metals, Inc. v. Lockwood*, 3 Cal. Rptr. 421, 428-33 (Ct. App. 1960) (where salesperson had only an oral employment contract, court found that employer did not own the employee's invention through the hired-to-invent-doctrine and also did not have a shop right in the invention, because the employee had created it on his own time and, on contested facts, had not used the employer's materials); *Quaker State Oil Ref. Co. v. Talbot*, 174 A. 99, 101-04 (Pa. 1934) (employee was hired to invent under oral contract, but employer did not obtain shop right to employer's pre-existing work that was not created with use of employer's resources).

²⁵ See *Peregrine Semiconductor Corp. v. RF Micro Devices, Inc.*, No. 3:12-CV-0911-H (WMC), 2014 U.S. Dist. LEXIS 2668, at *13 (S.D. Cal. Jan. 8, 2014) (where former employer sued former employee who transferred patent rights to a third party, and where employer could not prove it had a signed employment agreement, hired to invent doctrine did not favor employer on motion for preliminary injunction where it did not appear employee was hired for specific inventions at issue); *Gen. Elec. Co. v. Wilkins*, No. CV F 10-0674 LJO JLT, 2012 U.S. Dist. LEXIS 124642, at *59-60 (E.D. Cal. Aug. 31, 2012) (finding trial issues of fact on a hired-to-invent dispute where employee had not signed the company's invention assignment agreement, but was a patent co-inventor); *McClain v. State*, 269 S.W.3d 191, 198-99 (Tex. App. 2008) (prosecution failed to show that defendant was hired to invent, such that improvements he made to "set up sheets" belonged to him, with a shop right to his employer); *Pedersen v. Akona*, 429 F. Supp. 2d 1130, 1143 (D. Minn. 2006) (in absence of invention assignment contract, finding that employer owned patent because employee was hired to invent); *Scott Sys., Inc. v. Scott*, 996 P.2d 775, 779 (Col. App. 2000) (reversing summary judgment where there were triable issues of fact as to whether individual was hired to invent or not with respect to certain inventions); *Teets v. Chromalloy Gas Turbine Corp.*, 83 F.3d 403, 408 (Fed. Cir. 1996) (using the terminology of an implied-in-fact contract, but engaging in same analysis as hired to invent cases, reversing trial court and finding implied employee assignment obligation for invention where employee worked at company's direction and used its resources); *Liggett Grp., Inc. v. Sunas*, 437 S.E.2d 674, 678-80 (N.C. Ct. App. 1993) (reversing grant of summary judgment in favor of employer and finding

B. How Invention Assignment Contracts Favor the Employer

By and large, invention assignment contracts and related state statutes favor the employer over the employee, even though the text of some such statutes appears, at first glance, to be designed to protect employees. Generally speaking, an effective invention assignment to the employer occurs automatically, with no further steps required, and applies to inventions that the employee has not yet conceived.²⁶ In some jurisdictions, the contract can be effective even if the employer requires the employee to sign it after the employee has commenced employment.²⁷

triable issues of fact as to whether employee with no invention assignment contract was hired to invent in connection with tobacco-related patent); *California E. Lab., Inc. v. Gould*, 896 F.2d 400, 402-03 (9th Cir. 1990) (defining shop right concept and finding that right transferred to successor entity); *Aetna-Standard Eng'g Co. v. Rowland*, 493 A.2d 1375, 1381-82 (Pa. Super. Ct. 1985) (employee with no written contract was not hired to invent and thus owned no assignment duty to employer of invention, but employer had shop right license because its resources were used in development); *Mechmetals Corp. v. Telex Comput. Prods., Inc.*, 709 F.2d 1287, 1292-94 (9th Cir. 1983) (finding no shop right where company CEO had worked with two others to create invention, and company paid for materials and machine time CEO used when working on invention; existence of that contract and CEO's status militated against finding shop right); *Vigitron, Inc. v. Ferguson*, 419 A.2d 1115, 1117-18 (N.H. 1980) (employer owned invention because employee was hired to invent).

²⁶ An invention assignment agreement with the phrase "hereby assign" (or similar language) operates to automatically vest a covered invention with the employer at the moment it is created by the employee. No further action – that is, no formal act of assignment by the employee – is required for the automatic invention assignment to be effective. *See Roche*, 563 U.S. at 785-93 (noting historical rule that employee-inventors maintain ownership of their inventions absent an agreement with the employer; university did not own invention where agreement contained "will assign" language, separate agreement with private company had "hereby assign" language, and Bayh-Dole Act did not change the ordinary rules of employee invention assignment contracts); *Advanced Video Techs. LLC v. HTC Corp.*, 879 F.3d 1314, 1317-18 (Fed. Cir 2018) (invention assignment agreement failed where it stated only that employee "will assign" rights, which is not a present conveyance of future conceptions); *St. Clair Intellectual Prop. Consultants, Inc. v. Palm, Inc.*, No. 06-404-JJF-LPS, 2009 U.S. Dist. LEXIS 37512, *34-35 (D. Del. May 4, 2009) (finding that language in invention assignment agreements did not create a present conveyance of future rights); *Freedom Wireless, Inc. v. Boston Comm. Grp., Inc.*, 220 F. Supp. 2d 16, 19 (D. Mass. 2002) ("In order for a pre-invention assignment contract to create a present assignment of an expectant interest in an invention that automatically vests by operation of law into an actual assignment upon conception, the contract must contain words of present conveyance and must require 'no further act once an invention [comes] into being.'" (citation omitted) (contrasting contracts that use phrases like "does hereby grant" and "hereby does assign" with a contract that required the inventor to disclose the invention and perform acts necessary to establish ownership); *Imatec, Ltd. v. Apple Comput., Inc.*, 81 F. Supp. 2d 471, 482 (S.D.N.Y. 2000) ("I agree to assign and hereby do assign" . . . constituted a present assignment . . . of future

Expansive invention assignment statutes and agreements pose risks for employees who create outside-the-workplace developments, often with an eye towards forming a new company after resigning. Even if we assume good faith, with no use of employer trade secrets, time, or equipment, the employee faces many risks, and lines are not clearly drawn.

Part of the complication stems from changes in the workplace. When state invention assignment statutes were enacted in the 1970s and 1980s, perhaps it was easier to imagine a bright-line separation between the workplace and “nights and weekends” in an employee’s garage. Without the internet, employees typically did not work from home, much less on employee-owned phones and laptops. Moreover, it may then have been easier to determine with certainty what “related to” the employer’s business and what did not. Fewer companies were large multinational entities, with unrelated departments and operations of which an employee might be unaware. Though the scarce case law is hardly determinative on these questions, changes in modes of employment and the scope of companies’ operations may work to the detriment of employees who create new material on the side.

For similar reasons, employers may be able to argue that working hours – and thus what constitutes the employer’s time – are elastic, even 24/7, if employees typically answer email at home or on weekends. In one case that focused primarily on fiduciary duty but also involved an invention assignment contract, a court which issued a preliminary injunction was amenable to the notion that employer time meant more than ordinary working hours where employees often put in long days.²⁸ It remains to be seen how far this will go, however, as it seems that no court has yet analyzed whether a statute which appears to divide employer time and off-hours could be rendered meaningless if the employer is permitted to define its time as “24/7/365.”

inventions.”); *Arachnid, Inc. v. Merit Indus., Inc.*, 939 F.2d 1574, 1580 (Fed. Cir. 1991) (consulting agreement with phrase “will be assigned” “does not rise to the level of a present assignment of an existing invention, effective to transfer all legal and equitable rights therein”); *Filmtec Corp. v. Allied-Signal, Inc.*, 939 F.2d 1568, 1573 (Fed. Cir. 1991) (invention assignment contract that used the phrase “agrees to grant and does hereby grant” was not merely an agreement to grant future rights, but expressly granted “rights in any future invention”); *Treu v. Garrett Corp.*, 70 Cal. Rptr. 284, 287 (Ct. App. 1968) (where inventor had an assignment clause with his employer, the inventor’s ownership “was a fleeting thing which he had bargained away even before it became a reality . . . the instant the improvement was invented it became the exclusive property of [employer] . . . [plaintiff] had and could have no interest in the invention.”).

²⁷ See, e.g., *Preston v. Marathon Oil Co.*, 277 P.3d 81, 87-88 (Wyo. 2012) (invention assignment agreement valid when entered into after at-will employment began); *Eaton Corp. v. Giere*, 971 F.2d 136, 140 (8th Cir. 1992) (both earlier and later invention assignment contracts were valid); *Mosser Indus., Inc. v. Hagar*, 200 U.S.P.Q. (BNA) 608, 610, 616 (Pa. Ct. Com. Pl. Jan. 11, 1978) (employee signed second invention assignment contract for one dollar); *Grove v. Grove Valve & Regulator Co.*, 84 Cal. Rptr. 300, 303 (Ct. App. 1970) (employee’s valid invention assignment contract was “backdated” by more than a year).

²⁸ See *Iconix, Inc. v. Tokuda*, 457 F. Supp. 2d 969, 989, 992 (N.D. Cal. 2006).

A similar interpretive issue arises with the definition of the employer's resources. While employees of technology companies in 1980 or 1990 used office workstations too unwieldy to take home, employees today commonly use company-issued laptops and mobile devices. Confusing the issues further, many companies permit dual use. For example, employees may use company-issued devices for personal use (or vice-versa), subject to codes of ethics or other workplace guidelines. If an employee creates an unrelated invention for a future venture on a weekend, but uses a dual use company-issued laptop to do so, can the employer claim ownership? If an employee creates a new idea for a future venture on a dual-use company-owned mobile phone, can the employer claim ownership? The answer again is unclear, as courts do not appear to have yet analyzed this question.²⁹

The ambiguity of terms that appear in invention assignment statutes and contracts – such as terms that vest ownership in the employer when the employee's creation relates to the employer's business or research or when it results from the employee's work – also leads to interpretive difficulties.³⁰ These terms notably alter the common law, under which an employee must be “hired to invent” in order for the employer to own the creation. Under these terms, even the receptionist would be subject to employer ownership if his or her outside-the-workplace creations could be said to relate in some fashion to the employer's business.

More importantly, it remains unclear what phrases like “relates to” or “results from” mean in the everyday workplace. For example, what happens if an employee in good faith creates something offsite, intending to use it for a future business, but unbeknownst to the employee the company has been dabbling in something similar at a different office on the other side of the country? In other words, are the rules to be interpreted in a manner that takes the employee's notice of the scope of the employer's business into account? Does an employee's good faith intent matter? Thus far, no reported case has addressed this question.

The closest may be a 2007 decision from the Northern District of California which ruled in favor of the employer where an employee argued that he should own his invention because his own department's business did not encompass the work. The court, however, found that California's invention assignment statute did not contain terms limiting it to the particular department in which the employee works.³¹ That said, it appears that the employee was on notice that his or her

²⁹ By analogy, a federal court in Ohio declined to find that a group of departing employees violated their duties of loyalty by making preparations to compete before leaving where, among other things, the employer's evidence that they had used its resources was limited to a *de minimis* claim that one of them spoke to an insurer about the planned new venture “on his business cell phone.” See *Fitness Experience, Inc. v. TFC Fitness Equip, Inc.*, 355 F. Supp. 2d 877, 892-93 (N.D. Ohio 2004) (employees who planned new company and met with attorneys, insurers, and realtors granted summary judgment). The same result might apply for similar *de minimis* infractions in the invention assignment context.

³⁰ E.g., CAL. LAB. CODE § 2870 (West 1979).

³¹ See *Cadence Design Sys., Inc. v. Bhandari*, No. C 07-00823 MHP, 2007 U.S. Dist. LEXIS 83078, at *21-23 (N.D. Cal. Nov. 8, 2007) (explaining scope of invention assignment in detail

invention related to the employer's business,³² and thus the question of whether the statute is to be interpreted to reflect the employee's notice or state of mind is not at issue.

As explained below, the work for hire rules *do* explicitly consider the employee's state of mind, setting up a potential conflict with the law of invention assignment contracts on these issues.

Further complicating the problems with the interpretation of invention assignment contracts, some companies define themselves in employment agreements to include their affiliates; different entities that are separately incorporated and separately managed. It is unclear whether an invention assignment statute or agreement could divest an employee of an outside-the-workplace invention in a situation where the employer contends that the invention relates only to the business of a differently-incorporated affiliate entity.

The expansive wording of invention assignment contracts and statutes is not the only difficulty facing employees who create offsite work product. Some courts have held that even where an employee notifies the employer about a development and the employer verbally disclaims any interest in it, the employer can later retract that apparent waiver. The reasoning is that since the invention assignment rules automatically transfer ownership at the moment of creation, if the employer owns the invention, there is nothing that can be verbally bargained over.³³ Because this sort of thinking is unlikely to occur to non-lawyers, this can pose an unfavorable trap for employees, to say the least.

Taking the concept of employer ownership to its extreme, some employers attempt to obtain ownership of developments created by former employees entirely *after* the employee has left the job. Known as "holdover" or "trailer" clauses, these terms typically assert ownership of inventions for a set period after the employee's departure, or purport to establish a presumption of ownership. Some courts have rejected such clauses, at least where the former employee has

and rejecting argument that scope of assignment extends only to specific department in which the employee works).

³² An attorney had even warned the employee on this point. *See id.* at *21-22.

³³ While there is little case law on the question, courts have rejected employees' assertions that company managers or other employees waived or otherwise acquiesced to their personal use of inventions created during employment on two grounds: (a) because an invention automatically vests in the employer at the moment of creation, before the time of any claimed waiver; and/or (b) because the employee did not completely or fully disclose every facet of the invention to the employer, the employer could not have waived an interest in something it did not know everything about. *See, e.g., DDB Techs., L.L.C. v. MLB Advanced Media, L.P.*, 517 F.3d 1284, 1289-90 (Fed. Cir. 2008) (employee's arguments of waiver and estoppel based on manager's disinterest in idea were irrelevant because contract gave rise to automatic assignment at moment of creation); *Iconix*, 457 F. Supp. 2d at 986-87 (employee's claim that manager and general counsel had expressed disinterest in the idea did not prevent invention assignment where idea was never fully disclosed). *See also Eaton Corp.*, 971 F.2d at 137-38 (employee told employer just before his resignation "of his plans to develop and market his own competitive device" but invention vested in employer under invention assignment contract).

not misappropriated the former employer's trade secrets, or has narrowed their potential applicability.³⁴ But in 2012, the South Carolina Supreme Court found a broad holdover clause enforceable under the law of that state.³⁵ The court's reasoning was similar to those of courts which enforce post-employment non-competition covenants. It also failed to analyze the case of former employees working in good faith to launch a new venture. The threat posed by holdover

³⁴ See *Applied Materials, Inc. v. Advanced Micro-Fabrication Equip. (Shanghai) Co.*, 630 F. Supp. 2d 1084, 1089-1091 (N.D. Cal. 2009) (voiding a clause under California law that created a purportedly rebuttable presumption that the employer owned inventions for one year after the employee left, even where no trade secrets were misappropriated); *Ingersoll-Rand Co. v. Ciavatta*, 542 A.2d 879, 890-95 (N.J. 1988) (applying a reasonableness analysis to a post-employment holdover invention assignment clause; finding that such covenants might be enforceable beyond "trade secrets and confidential information" to include some additional, poorly-defined category of "highly specialized, current information not generally known in the industry" that appears indistinguishable from contemporary definitions of what trade secret law covers); *Fed. Screw Works v. Interface Sys., Inc.*, 569 F. Supp. 1562, 1564 (E.D. Mich. 1983) (agreement which required employees to assign all inventions for an indefinite time period relating to the employer's field of activity or "contemplated field of activity" found unenforceable); *Armorlite Lens Co. v. Campbell*, 340 F. Supp. 273, 275 (S.D. Cal. 1972) (finding clause in employee invention assignment agreement which required assignment of new ideas and concepts for one year after employment ended was unenforceable unless such inventions used the trade secrets of the former employer); *Winston Research Corp. v. Minn. Mining & Mfg. Co.*, 350 F.2d 134, 145-46 (9th Cir. 1965) (where employer's contract required invention assignment of post-employment inventions that were "based upon" its confidential information, court affirmed rulings where such inventions were premised on former employer's trade secrets, and thus owned by employer, or where no trade secrets were used); *De Long Corp. v. Lucas*, 176 F. Supp. 104, 127-28 (S.D.N.Y. 1959) (where settlement agreement between former employer and former employee only assigned rights to inventions developed during employment, and where evidence was that new inventions post-dated employment, former employee owed no assignment obligation), *aff'd*, 278 F.2d 804 (2d Cir. 1960); *Guth v. Minn. Mining & Mfg. Co.*, 72 F.2d 385, 388 (7th Cir. 1934) (invention assignment agreement without time limitation was "contrary to public policy"); *cf.* *Yield Dynamics, Inc. v. TEA Sys. Corp.*, 66 Cal. Rptr. 3d. 1, 26 (Ct. App. 2007) (where employer's invention assignment contract created a one-year, post-employment holdover stating that there was a rebuttable presumption that inventions conceived within one year of leaving are owned by the employer, and that inventions during that time must be disclosed, court did not address legality of the clause and affirmed trial court on grounds that employee disclosed a post-employment development to the former employer, which did not request assignment).

³⁵ See *Milliken & Co. v. Morin*, 731 S.E.2d 288, 295 (S.C. 2012) (finding a one-year holdover clause enforceable even though it covered inventions created post-employment and without use of the employer's trade secrets).

clauses to employees who resign and create new intellectual property for the first time after leaving is obvious.³⁶

At the same time, courts have generally rejected employment contracts which purport to require employees to assign inventions created before starting the new job.³⁷ However, the employee's incorporation of pre-existing work product into intellectual property created during the period of employment generally will not prevent assignment of that new work to the employer, assuming the conditions for such assignment exist.³⁸

Finally, if an employee signs two invention assignment contracts, the first-in-time has priority. This means that if an employee has signed a valid invention assignment contract with a current employer, he or she cannot avoid that agreement by signing a new, second-in-time invention assignment contract in favor of a new start-up venture. Thus, creating an outside-the-workplace invention and assigning it under a new agreement to a new venture would not transfer ownership to the new venture if the prior first-in-time assignment agreement applies to vest the employer with ownership.³⁹

³⁶ For a well-written student note critiquing holdover clauses, see Marc B. Hershovitz, Note, *Unhitching the Trailer Clause: The Rights of Inventive Employees and Their Employers*, 3 J. INTELL. PROP. L. 187, 206-12 (1995).

³⁷ See *Feeney v. Transition Automation, Inc.*, No. 06-11677, 2008 WL 190766, at *17-19 (D. Mass. Jan. 9, 2008) (where individual disclosed invention before becoming employee and signing invention assignment contract, court interpreted language of contract to vest ownership with individual, not employer); *Voith Hydro, Inc. v. Hydro W. Group, Inc.*, No. C-96-1170 SC, 1997 WL 154400, at *6 (N.D. Cal. Mar. 26, 1997) (although company had a valid employee invention assignment with individual, company did not own invention that employee had conceived and disclosed before becoming an employee of the company); *Bailey v. Chattem, Inc.*, 684 F.2d 386, 391 (6th Cir. 1982) (employer did not own employee's idea that "was complete prior to the time he began to work for" the employer, and thus prior to invention assignment agreement); *Fox v. Kingsland*, 81 F. Supp. 433, 437-38 (D.D.C. 1948) (where inventor was employed by Patent Office and also the Signal Corps, he retained ownership despite written agreement with the Signal Corps because invention pre-dated that employment).

³⁸ The incorporation of pre-existing material does not defeat an invention assignment of the new combination as a whole. See, e.g., *ViChip Corp. v. Lee*, 438 F. Supp. 2d 1087, 1095 (N.D. Cal. 2006) (granting summary judgment and rejecting employee's argument that some of the technology in the invention was "preexisting"; employee failed to identify such material or explain how it could be "carved out from" the overall invention that was subject to his employment agreement); *Mosser Indus., Inc. v. Hagar*, 200 U.S.P.Q. (BNA) 608, 613-14 (Pa. Ct. Com. Pl. Jan. 11, 1978) (granting injunction for employer; even if employee thought up "individual elements" of his creation before he joined the employer, his "combination of those elements into a working prototype occurred during" his employment, and thus the invention assignment clause applied to that "combination").

³⁹ See, e.g., *Imatec, Ltd. v. Apple Comput., Inc.*, 81 F. Supp. 2d 471, 482 (S.D.N.Y. 2000) (prior employer had invention assignment contract which covered invention, and thus former

C. The Case Law on Invention Assignment Contracts is One-Sided

Overall, these rules tend to favor the employer where an employee creates an outside-the-workplace invention. Where exactly an invention stops “relating to” or “resulting from” the company’s business or the employee’s work is not clear. That ambiguity empowers employers over employees. Adding further ambiguity about what constitutes use of the employer’s time or equipment, and the open question whether the employee’s personal notice of the employer’s activities matter, the statutes pose a minefield for offsite creations. Oral permissions may not suffice, undermining above-board efforts to be transparent. And in the most restrictive jurisdictions, former employers may even be able to obtain ownership of intellectual property conceived and developed entirely after the employee has quit and left.

Given the reach of state statutes and the manner in which these agreements override the common law “hired to invent” exception to broaden the scope of employer ownership, it is not surprising that the available case law strongly favors employers in disputes with employees, and in fact is nearly one-sided. Employees rarely prevail.⁴⁰

employee had nothing to assign to third party and third party lacked standing to sue over patent at issue); *Filmtec Corp. v. Allied-Signal, Inc.*, 939 F.2d 1568, 1573-74 (Fed. Cir. 1991) (stating same rule and remanding for factual findings as to whether company had actual or “inquiry” notice of a prior invention assignment to a former employer or a third party and thus may not have been bona fide purchaser); *Thompson v. Automatic Fire Prot. Co.*, 211 F. 120, 121 (2d Cir. 1914) (where inventor already had assigned invention to plaintiff, and where defendants knew of that assignment, assignment to defendants was invalid: “It seems to us that a business man of reasonable care and prudence would, under these circumstances, before putting his money into an enterprise, have gone to [plaintiff] and asked him if he was making any claim to this invention of [inventor] and, if he said he was, would have asked him what was the nature of his claim, so that the inquirer might advise himself whether he could safely purchase.”).

⁴⁰ See *Venture Corp. v. Barrett*, No. 5:13-cv-03384-PSG, 2015 U.S. Dist. LEXIS 165809, at *13-14 (N.D. Cal. Dec. 9, 2015) (affirming jury finding that employee’s invention belonged to employer because it was created using the employer’s time or resources); *Blackbird Techs., Inc. v. Joshi*, No. 5:15-cv-04272-EJD, 2015 U.S. Dist. LEXIS 136505, at *24 n.6 (N.D. Cal. Oct. 6, 2015) (issuing preliminary injunction under duty of loyalty theory against employee who started competitive business while employed; terms of injunction barred use of inventions covered by invention assignment agreement); *Preston v Marathon Oil Co.*, 684 F.3d 1276, 1359-60 (Fed. Cir. 2012) (invention assignment agreement valid and assigned rights in invention to employer); *NovelAire Techs., LLC v. Harrison*, 50 So. 3d 913, 919-21 (La. Ct. App. 2010) (affirming finding that employee violated invention assignment agreement by failing to disclose invention he created and took to new venture after departing); *Iconix, Inc. v. Tokuda*, 457 F. Supp. 2d 969, 989-92 (N.D. Cal. 2006) (issuing preliminary injunction over social media tool that related to company’s advertising strategy plan); *Regents of the Univ. of N.M. v. Knight*, 321 F.3d 1111, 1118 (Fed. Cir. 2003) (affirming finding that university patent policy vested ownership in invention in institution); *Fenn v. Yale Univ.*, 283 F. Supp. 2d 615, 629-30 (D. Conn. 2003) (academic bound by university’s patent assignment policies, despite policy amendments since he

Even a rare exception – a remand ruling in favor of a departing employee – rests on dubious conclusions. In the well-publicized *Mattel v. MGA* battle over ownership of doll designs where a departing employee had ideas and did at least some preliminary work before resigning, the Ninth Circuit found fault with the employer’s position because its invention assignment contract lacked the word “ideas” in its recitation of what the contract covered.⁴¹ That ruling comes across as the

agreed to it, and thus university owned patent he had licensed to a third party); *Univ. of W. Va. v. Van Voorhies*, 278 F.3d 1288, 1298 (Fed. Cir. 2002) (academic bound to assign patent under university’s patent policy); *Waterjet Tech., Inc. v. Flow Int’l Corp.*, 996 P.2d 598, 601-02 (Wash. 2000) (where former employee refused to assign rights over patent to workplace invention, court found notice to employee satisfied Washington’s invention assignment statute such that invention assignment contract was enforceable to vest ownership in employer); *Vt. Microsystems, Inc. v. Autodesk, Inc.*, 88 F.3d 142, 150-51 (2d Cir. 1996) (affirming ruling that defendant, who started as intern and later became employee and signed an invention assignment agreement, had no interest in software created for the company); *Eaton Corp. v. Giere*, 971 F.2d 136, 140 (8th Cir. 1992) (granting summary judgment in favor of employer where employee had breached invention assignment agreement by creating a product within employer’s “actual or demonstrably anticipated research and development,” even though employee’s invention related to a market which employer had “not yet been able to crack”); *Cubic Corp. v. Marty*, 229 Cal. Rptr. 828, 835 (Ct. App. 1986) (affirming judgment for employer where assignment provision was for “inventions which relate to the ‘actual’ or ‘demonstrably anticipated’ business of the employer”); *Goldwasser v. Smith Corona Corp.*, 817 F. Supp. 263, 276 (D. Conn. 1993) (entering summary judgment for IBM, noting that employee’s invention or idea which “involve[d] the entry of text into a computer relates to IBM’s ‘actual or anticipated business’”); *Gen. Signal Corp. v. Primary Flow Signal, Inc.*, No. 85-0471B, 1987 WL 147798, at *4 (D.R.I. July 27, 1987) (granting employer ownership of invention where employee was subject to invention assignment agreement, and claimed to have come up with new ideas just five days after leaving job; court found employee’s account “difficult to believe”); *Syntex Ophthalmics, Inc. v. Tsuetaki*, 701 F.2d 677, 682 (7th Cir. 1983) (affirming finding in favor of employer on invention assignment dispute given “the inherent improbability” of employee’s “story that he conceived of the [invention] four days after he left” his job); *Andreaggi v. Relis*, 408 A.2d 455, 460 (N.J. Super. Ct. Ch. Div. 1979) (invention related to employee’s work and thus fell within invention assignment agreement); *Goodyear Tire & Rubber Co. v. Miller*, 22 F.2d 353, 354 (9th Cir. 1927) (where defendant signed an employment contract in which he agreed expressly to assign title to any inventions that related to “methods, processes, or apparatus concerned with the production of any character of goods or materials sold or used” or “any character of goods or materials sold or used” by Goodyear, employer owned invention that fell within general range of what employee was hired to do).

⁴¹ See *Mattel, Inc. v. MGA Entm’t, Inc.*, 616 F.3d 904, 909-12 (9th Cir. 2010) (vacating constructive trust for former employer because invention assignment agreement did not contain the word “ideas” and remanding for consideration of extrinsic evidence; court notably did not construe California Labor Code section 2870 except for a passing reference in a footnote). One student commentator found fault with the ruling, but erroneously conflated California’s invention

product of incomplete analysis given that the contract seemingly included synonyms (such as “developments”) and because the court did not analyze the terms of California’s invention assignment statute.⁴²

All told, and excluding cases about post-employment “holdover” clauses, there are many cases where the employer (whether a private company or a university) prevailed in an invention assignment contract dispute with an employee.⁴³ By contrast, only a few have found in favor of an employee.⁴⁴

assignment statute with the work for hire doctrine. *See* Connor Boyd, Note, *The Bratz Trap: Ownership and Infringement at the Nexus of Copyright and Employment Law*, 45 U.C. DAVIS L. REV. 221, 237, 245 (2011) (asserting that section 2870 “refined” the work for hire doctrine, assuming that a state statute could alter the federal Copyright Act and that its coverage was not instead for trade secrets and patentable inventions).

⁴² One court denied (in whole or in part) cross-motions for summary judgment where there were disputed facts regarding an employee’s development of source code on his own time, for an unrelated side business, but that the employer contended contained “similarities” with its own source code. *See* Enreach Tech., Inc. v. Embedded Internet Sols., Inc., 403 F. Supp. 2d 968, 974-75 (N.D. Cal. 2005). *See also* Rothschild v. Cree, Inc., 711 F. Supp. 2d 173, 182-83 (D. Mass. 2010) (finding fact issues on jurisdictional matters as to individual’s standing to sue for patent infringement where it was unclear whether individual had developed key patent ideas while under another company’s invention assignment agreement or afterwards).

⁴³ *See* cases cited *supra* notes 7, 34, 36. As with any attempt to count holdings from reported cases, caveats are in order. The LEXIS and Westlaw databases do not pick up every ruling in every case, especially those from state trial courts. Some rulings in trade secret cases may be under seal, so that details are not viewable to the public. Appellate rulings matter more than trial court rulings, but the degree of careful analysis varies from case to case. Reported cases may or may not reflect typical fact patterns. Many disputes settle without litigation, or settle before a court issues a ruling on issues of substantive law. As a result, apparent trends in case law can be somewhat arbitrary, as they depend on what lawsuits become easily available to researchers.

⁴⁴ Of the three, one remanded on a rather unique contract interpretation, one is unpublished, and one arose from a time period before California enacted its current invention assignment statute. The same outcome under today’s statute seems unlikely. *See* *Mattel*, 616 F.3d at 909-12; *Applera Corp. v. Illumina, Inc.*, 375 Fed. App’x. 12, 17-18 (Fed. Cir. 2010) (in a case decided under an older version of California’s invention assignment statute, the court affirmed a finding that employee-attorney’s invention did not “result from” work for the plaintiff); *NeoNetworks, Inc. v. Cree*, A07-0729, 2008 Minn. App. Unpub. LEXIS 565, at *15 (Ct. App. May 20, 2008) (affirming dismissal of claims against former employees and costs award in their favor after failed ex-employers causes of action, including breach of contract over invention assignment, were rejected where defendants began project after company failed and did not use company resources).

But as discussed below, a different regime governs when employees create copyrightable works – with different considerations, different outcomes, and potential direct conflicts with the law of invention assignment agreements.

III

THE WORK FOR HIRE DOCTRINE AND EMPLOYEE-EMPLOYER CONFLICTS

A. *Work for Hire Law and the Restatement of Agency*

This article proposes that where an employee creates copyrightable material, the test for allocating ownership of that material differs from the invention assignment tests for allocating ownership of trade secrets and patentable inventions described above. We start with an analysis of modern work for hire law, developed following a major Supreme Court decision in 1989, *Community for Creative Non-Violence v. Reid*.⁴⁵

The law of employee invention assignment contracts is pervasive, and encompasses most of the creative work product employees may generate on the job – whether trade secrets or inventions – that result in issued patents. However, it does not cover everything, and thus a separate, but seemingly similar body of law fills the gap. For employee creations that are expressive – and that meet the standards for copyright protection – the work for hire doctrine allocates ownership between employers and employees, just as the interplay of contract wording and (in some states) legislative enactments allocates ownership of potential trade secrets and patentable inventions.

The work for hire doctrine allocates ownership of copyrightable works in a manner that is more favorable to the employee, posing a direct conflict with the law of invention assignment contracts where an employee creates something that is potentially both copyrightable and a trade secret.

The work for hire doctrine is partly a matter of statute, partly a matter of contract law, and partly a matter of the common law of agency. Generally speaking, a copyrightable work created by an employee within the scope of his or her employment belongs, at creation, to the employer:

A “work made for hire” is (1) a work prepared by an employee within the scope of his or her employment; or (2) [specific categories of works not applicable to this essay].

In the case of a work made for hire, the employer or other person for whom the work was prepared is considered the author for purposes of this title, and, unless the parties have expressly agreed otherwise in a written instrument signed by them, owns all of the rights comprised in the copyright.

⁴⁵ *Cmt. for Creative Non-Violence v. Reid*, 490 U.S. 730, 743 (1989)

See 17 U.S.C. §§ 101, 201(b) (2012).⁴⁶ The work for hire doctrine does not extend to independent contractors, however, and thus a copyrightable work created by an independent contractor belongs to the contractor, absent a contract saying otherwise.⁴⁷

In determining who is an employee and who is not, courts are to apply the federal common law of agency, rather than the employment law of particular states.⁴⁸ That question is solved by analyzing a large number of factors.⁴⁹ Disputes over whether a person is a contractor or an

⁴⁶ As the text of the statute indicates, no contract is required for a work for hire to exist. Nonetheless, as with the law of employee invention assignments, companies generally insert work for hire assignment terms into standard-form employment contracts, usually if not always next to the terms regarding invention assignment.

⁴⁷ See *Reid*, 490 U.S. at 743 (key case on the work for hire doctrine); *JustMed, Inc. v. Byce*, 600 F.3d 1118, 1128 (9th Cir. 2010) (affirming finding that software programmer was employee, giving company ownership of software as work for hire).

⁴⁸ *Id.* at 750-51 (“To determine whether a work is for hire under the Act, a court first should ascertain, using principles of the general common law of agency, whether the work was prepared by an employee or an independent contractor.”).

⁴⁹ Whether someone is an employee or an independent contractor for purposes of Copyright Act analysis involves the weighing of numerous factors. *Reid* lists twelve, none of which are “determinative”: (1) the hiring party’s right to control the manner and means by which the product is accomplished; (2) the skill required; (3) the source of instrumentalities and tools; (4) the location of the work; (5) the duration of the relationship between the parties; (6) whether the hiring party has the right to assign additional projects to the hired party; (7) the extent of the hired party’s discretion over when and how long to work; (8) the method of payment; (9) the hired party’s role in hiring and paying assistants; (10) whether the work is part of the regular business of the hiring party; (11) whether the hiring party is a business; (12) the provision of employee benefits and the tax treatment of the hired party. See *id.* at 751-52. Some courts have suggested that the tax/benefits classification of the author is the most important factor, or at least a disproportionately important factor. See *Hi-Tech Video Prods., Inc. v. Capital Cities/ABC, Inc.*, 58 F.3d 1093, 1097 (6th Cir. 1995) (factor is a “strong indication of a worker’s employment status”); *Kirk v. Harter*, 188 F.3d 1005, 1008 (8th Cir. 1999) (finding factor important where hiring party reported author to IRS as an independent contractor); *Aymes v. Bonelli*, 980 F.2d 857, 862-63 (2d Cir. 1992) (failure to pay taxes and benefits “constitute virtual admissions of [author’s] status by [hiring party] himself;” citing numerous post-*Reid* cases and saying “every case since *Reid* that has applied the test has found the hired party to be an independent contractor where the hiring party failed to extend benefits or pay social security taxes.”) (citing cases); *Numbers Licensing, LLC v. bVisual USA, Inc.*, 643 F. Supp. 2d 1245, 1251-52 (E.D. Wash. 2009) (where individual had his own consulting entity and company contracted with that entity, and where entity was responsible for individual’s “payroll obligations, tax obligations, and employee benefits,” those and other factors led to court’s conclusion that individual was independent contractor and software was not a work for hire). One court, however, rejected the “usually dispositive” tax/benefits factor where the author worked full-time, was paid weekly, believed he had a long-term relationship, was shown the hiring party’s source code, worked with

employee are common, and the case law on that question is extensive. However, where the individual at issue starts as a contractor and later becomes an employee, the question of whether a work for hire exists is further muddled.⁵⁰

For our purposes, these disputes are peripheral. What matters instead is who owns the copyrightable material created by an employee when an employment relationship exists. As the Copyright Act states, when the author of a copyrightable work is clearly an employee of the party claiming ownership under the work for hire doctrine, the sole question is whether the author created the work within the scope of his or her employment:

A “work made for hire” is . . . a work prepared by an employee within the scope of his or her employment.⁵¹

the hiring party’s equipment and accessed the hiring party’s servers from home, telecommuted but also worked twice a week at the hiring party’s facility for at least some period, assisted with other assignments, received assistance in software programming from the hiring party, had access to the hiring party’s office and equipment, and met a third party as a representative of the hiring party. *See* *Sasnett v. Convergent Media Sys., Inc.*, No. 95-12262-NG, 1997 WL 33142149, at *9 (D. Mass. Aug. 29, 1997) (on preliminary injunction request, finding that plaintiffs were likely to succeed on the merits).

Courts have identified other possible factors beyond those set forth in *Reid*. A possible additional factor could be whether the corporation existed at the time of creation. *See* *Billy-Bob Teeth, Inc. v. Novelty, Inc.*, 329 F.3d 586, 591 (7th Cir. 2003) (doctrine did not apply where, among other things, “the corporation did not exist when the [works] were authored”; company incorporated the year after creation of works). Another possible additional factor is whether the author worked for others at the same time. *See* *Kirk*, 188 F.3d at 1008 (“[T]hroughout his six-year relationship with [hiring party], [author] continued to engage in computer consulting with other companies, a factor suggesting that he was an independent contractor.”); *Aymes*, 980 F.2d at 864 (finding it probative that author “did occasional work for others at the same time” despite working for two years for hiring party); *Alcatel USA, Inc. v. Cisco Sys., Inc.*, 239 F. Supp. 2d 645, 654 (E.D. Tex. 2002) (noting that author “was simultaneously working as an independent contractor for two other companies”). Yet another possible factor is the hiring party’s own perceptions of whether the author was an employee or not. *See* *Hi-Tech Video Prods., Inc.*, 58 F.3d at 1099 (fact that hiring party did not perceive assistants as employees weighed in favor of finding them to be independent contractors); *see also* *Alcatel USA*, 239 F. Supp. 2d at 654 (finding it significant that hiring party had called author an independent contractor in a prior lawsuit before time “when it finally became advantageous for [hiring party] to treat [author] as its employee in order for it to assert ownership of [author’s] creations”).

⁵⁰ *See* *Massingill v. Stream, Ltd.*, No. 3:08-cv-0091-M, 2009 WL 3163549, at *5 (N.D. Tex. Oct. 1, 2009) (company’s motion for summary judgment on ownership of software program denied; fact issues remained where individual started work on software as contractor, later became employee, and whether the work “continued to be developed during his employment with [company] such that it would constitute a ‘work for hire’ under the Copyright Act.”).

⁵¹ 17 U.S.C. § 101 (2012).

Much like the law of invention assignment contracts, an employer's agreement with an employee to assign works for hire is not the end of the story. A penumbra of case law defines what "scope of his or her employment" means, and in effect creates exceptions to the presumption of employer ownership.⁵² Thus, while employment contracts ubiquitously recite that works for hire belong to the employer, the assignment is not monolithic.⁵³

⁵² As Nimmer puts it, "Under the current Act, even if a work is prepared by an employee, if it is not prepared 'within the scope of his or her employment,' it is not regarded as a 'work made for hire.' Therefore, an agreement between employer and employee whereby works prepared by the employee that are not prepared within the scope of employment are nonetheless deemed to be 'works made for hire,' will not in itself convert such works into the 'for hire' category." 1 MELVILLE B. NIMMER AND DAVID NIMMER, NIMMER ON COPYRIGHT § 5.03[B][1][b][ii] (Matthew Bender, Rev. Ed. 2018).

⁵³ I have found no empirical study of employment contract terms assigning works made for hire. That said, many samples are publicly available. My own anecdotal experience, based on viewing thousands of employment agreements in Silicon Valley and elsewhere, drafted by a wide variety of law firms, suggests that most recite that works for hire in the scope of employment are assigned – that is, the typical agreement follows the text of the Copyright Act. A very typical sample, pulled from a website which collects such standard terms, reads: "Employee acknowledges that all original works of authorship which are made by him (solely or jointly with others) within the scope of his employment and which are protectable by copyright are works made for hire, pursuant to the United States Copyright Act (17 U.S.C. SS 101 et seq.), and are solely the property of the Company." See LAW INSIDER, *Works Made for Hire Sample Clauses*, <https://www.lawinsider.com/clause/works-made-for-hire> (last visited Oct. 17, 2018).

Two other points about such contracts are worth noting. First, an employer and an employee can negotiate a different structure by contract – such as a royalty-based scheme – though it seems unlikely that a form contract could undercut rights granted by the Copyright Act through the scope of employment test any more than an invention assignment contract could get around state statutory limits on the scope of such agreements. See *generally* Comput. Data Sys., Inc. v. Kleinberg, 759 F. Supp. 10, 13-14 (D.D.C. 1990) (triable issue of fact on scope of employment because contract stated that if employee developed certain computer software and agreed to transfer it to employer, he would get a royalty to be negotiated at the time).

Second, as with any matter of employment contracts, questions of timing matter. Some courts have taken a position on the question whether, in general, a post-creation writing can give a hiring party work for hire rights. Because the statute's text seems to indicate that ownership starts from the time of creation, the Seventh Circuit held in 1992 that there cannot be a work for hire based on a written agreement unless the writing predates the creation of the work. See *Schiller & Schmidt, Inc. v. Nordisco Corp.*, 969 F.2d 410, 413 (7th Cir. 1992) (basing its rule on the need to have certainty). By contrast, the Second Circuit rejected this approach and held that it is possible to have a work for hire based on a post-creation written agreement, so long as that agreement evidences a prior agreement before the time of creation. See *Playboy Enters., Inc. v. Dumas*, 53 F.3d 549, 559 (2d Cir. 1995) (noting that the Nimmer treatise disagreed with *Schiller* and holding that "the writing requirement . . . can be met by a writing executed after the work is

Every court to address the “scope of employment” issue since the Supreme Court addressed work for hire law in the 1989 *Reid* decision has applied a three-part test based on section 228 of the Restatement (Second) of Agency: “Conduct of a servant is within the scope of employment if, but only if: (a) it is of the kind he is employed to perform; (b) it occurs substantially within the authorized time and space limits; (c) it is actuated, at least in part, by a purpose to serve the master.”⁵⁴ This reference to the Restatement is typically perfunctory, as courts do not cite other sections from the same chapter.⁵⁵

Supposedly, all three tests must be met for there to be a work for hire, meaning that the test is conjunctive, not disjunctive.⁵⁶ But at the same time, courts seem to place the least emphasis on the second factor and will find a work for hire if the other two factors are met and at least some

created, if the writing confirms a prior agreement, either explicit or implicit, made before the creation of the work”; remanding on that factual question). *See also* Compaq Comput. Corp. v. Ergonome Inc., 210 F. Supp. 2d 839, 843-45 (S.D. Tex. 2001) (following *Playboy*, holding that test requires showing that the parties “understood at the time the [works] were created that the works were made for hire,” and finding test met where written agreement made express reference to work done the year before; written agreement predated author’s subsequent assignment to another company by several years); *Kasten v. Jerrystone*, No. 02-421, 2004 WL 1857680, at *6 (E.D. La. Aug. 16, 2004) (noting *Playboy* rule, finding that agreement at issue did not mention previous works, only future works, but separately holding that contract was modified by acceptance of royalties for pre-agreement works).

⁵⁴ RESTATEMENT (SECOND) OF AGENCY § 228 (AM. LAW INST. 1958).

⁵⁵ Although rarely cited by the courts, the Restatement (Second) of Agency has ten sections regarding “scope of employment.” For the most part, the focus of these sections is on whether the employer will be liable for tortious or illegal acts by an employee. As a result, many of the annotated cases address such matters as joy rides in the company car and assaults by employees, with little value for work for hire disputes. That said, section 229, “Kind of Conduct Within Scope of Employment,” details factors that might assist courts in work for hire disputes, such as “whether or not the act is one commonly done by such servants,” “the time, place and purpose of the act,” and “the similarity in quality of the act done to the act authorized.” Sections 235 and 236, in turn, address the third factor of the employee’s purpose, or intentions. Section 235 states “An act of a servant is not within the scope of employment if it is done with no intention to perform it as a part of or incident to a service on account of which he is employed.” The comment says “It is the state of the servant’s mind which is material.” Section 236 states “Conduct may be within the scope of employment, although done in part to serve the purposes of the servant or a third person.” That is consistent with the case law cited above. *Id.* §§ 228-237.

⁵⁶ *See* *Genzmer v. Pub. Health Tr. of Miami-Dade Cty.*, 219 F. Supp. 2d 1275, 1280 (S.D. Fla. 2002) (stating rule: “Courts interpret this test as conjunctive. That is, the party attempting to establish that the work was made for hire must establish all three elements.”); *Moonstruck Design, LLC v. Metz*, No. 02 CIV. 4025(RWS), 2002 WL 1822927, at *3 (S.D.N.Y. 2002) (stating rule); *Quinn v. City of Detroit*, 988 F. Supp. 1044, 1052 (E.D. Mich. 1997) (same); *Roeslin v. District of Columbia*, 921 F. Supp. 793, 798 (D.D.C. 1995) (same); *City of Newark v. Beasley*, 883 F. Supp. 3, 8 (D.N.J. 1995) (same).

of the creative work was done at the employer's facility and during work hours – or in some cases none at all.⁵⁷ Further, like invention assignment law, courts may be open to an expansive interpretation of employer time where a company has a more 24/7 working culture.⁵⁸

Perhaps because the work for hire scope of employment test presents a more balanced allocation of interests compared to the tests under a typical employee invention assignment contract, case law outcomes appear less one-sided. Putting aside inconclusive rulings, I have found around the same number of work for hire cases where the employer prevailed as to ownership of the work (at least as to injunctive relief)⁵⁹ as those where the employee prevailed.⁶⁰

⁵⁷ See *Avtec Sys. v. Peiffer*, 21 F.3d 568, 571 (4th Cir. 1994) (noting that if first factor is met, courts will not favor employee just because work was done off-site); *McKenna v. Lee*, 318 F. Supp. 2d 296, 301 (E.D.N.C. 2002) (same; prisoner did work in his cell, but license plate design was what he was hired to do); *Martin v. City of Indianapolis*, 982 F. Supp. 625, 634 (S.D. Ind. 1997) (noting that you can't avoid the work for hire doctrine by doing the work off-site), *aff'd*, 192 F.3d 608 (7th Cir. 1999); *Marshall v. Miles Labs., Inc.*, 647 F. Supp. 1326, 1331 (N.D. Ind. 1986) (pre-*Reid* case; article held to be work for hire even though employee did much work away from the employer's facility because work related to the things plaintiff was hired to do, and because it was based on research done by another employee for employer); *Miller v. CP Chems.*, 808 F. Supp. 1238, 1243 (D.S.C. 1992) (employee worked off-site on software but “[o]n the other hand, the work was performed during the time period in which he was employed by [employer].”).

⁵⁸ See, e.g., *U.S. Auto Parts Network, Inc. v. Parts Geek, LLC*, 692 F.3d 1009, 1018-19 (9th Cir. 2012) (remanding where there was a triable issue of fact as to whether portion of software written when programmer was an employee was within his scope of employment, where among other things he “lived rent-free in a house that doubled” as a company office and did not “strictly” differentiate between work and personal hours, so that his work was “within authorized work hours and space limits.”).

⁵⁹ As of May 2018 when this research was completed, these cases are: *Genzmer*, 219 F. Supp. 2d at 1275; *Molinelli-Freytes v. Univ. of P.R.*, No. 09-1655(DRD), 2012 U.S. Dist. LEXIS 143262 (D.P.R. Sept. 30, 2012); *Fleurimond v. N.Y. Univ.*, 876 F. Supp. 2d 190 (E.D.N.Y. 2012); *Le v. City of Wilmington*, 736 F. Supp. 2d 842 (D. Del. 2010); *Rouse v. Walter & Assocs., LLC*, 513 F. Supp. 2d 1041 (S.D. Iowa 2007); *McKenna*, 318 F. Supp. 2d at 296; *Miller*, 808 F. Supp. at 1238; *Vanderhurst v. Colorado Mountain Coll. Dist.*, 16 F. Supp. 2d 1297, 1307 (D. Col. 1998); *Lewis v. Activision Blizzard, Inc.*, No. C 12-1096 CW, 2013 U.S. Dist. LEXIS 149784 at *1 (N.D. Cal. Oct. 17, 2013); and *Sterpetti v. E-Brands Acquisition, LLC*, No. 6:04-cv-1843-Orl-31DAB, 2006 U.S. Dist. LEXIS 21407 at *1 (M.D. Fla. Apr. 20, 2006).

⁶⁰ These are: *Avtec*, 21 F.3d at 568; *Moonstruck*, 2002 WL 1822927 at *1; *TAP Worldwide, LLC v. Becker*, No. CV 10-04903 DMG (JCx), 2010 WL 2757354, at *1 (C.D. Cal. July 12, 2010); *PFS Dist. Co. v. Raduechel*, 332 F. Supp. 2d 1236 (S.D. Iowa 2004), *Roeslin*, 921 F. Supp. at 793; *Quinn*, 988 F. Supp. at 1044; *Food Lion, Inc. v. Capital Cities/ABC, Inc.*, 946 F.

Scholarly writing about the work for hire doctrine has mostly centered on a question that precedes the topic of this article – whether the author is an independent contractor or an employee in the first place.⁶¹ That focus is no surprise, as there is a prominent Supreme Court

Supp. 420 (M.D.N.C. 1996); *Beasley*, 883 F. Supp. at 3; *Cannon Grp., Inc. v. Better Bags, Inc.*, 250 F. Supp. 2d 893, 901 (S.D. Ohio 2003); and *Martin*, 982 F. Supp. at 625.

⁶¹ See Ryan Vacca, *Work Made for Hire – Analyzing the Multifactor Balancing Test*, 42 FLA. ST. U. L. REV. 197 (2014) (thorough history and analysis of case law after *Reid* on employee versus contractor analysis); Llewellyn Joseph Gibbons, *Love’s Labor’s Lost: Marry for Love, Copyright Work Made-for-Hire, and Alienate at Your Leisure*, 101 KY. L.J. 113, 180 (2013) (addressing work for hire in the community property context); Jon M. Garon & Elaine D. Ziff, *The Work Made for Hire Doctrine Revisited: Startup and Technology Employee and the Use of Contracts in a Hiring Relationship*, 12 MINN. J.L. SCI. & TECH. 489, 505-09 (2011) (addressing work for hire agreements and asserting in passing that, as to California’s invention assignment statute, “[t]he two exceptions in section 2870 reasonably approximate the ‘scope of employment’ prong of the work for hire doctrine, as applied to the state law of assignment of employee work product”); Assaf Jacob, *Tort Made for Hire – Reconsidering the CCNV Case*, 11 YALE J.L. & TECH. 96, 143-144 (2009) (touching on the scope of employment test, but primarily focusing on whether agency law provides the best fit for assessing employee/contractor status); Deborah Tussey, *What Ifs and Other Alternative Intellectual Property and Cyberlaw Story: What If Employees Owned Their Copyrights?*, 2008 MICH. ST. L. REV. 233, 242 (2008) (“In short, if Congress had not adopted the work for hire doctrine during the early years of corporatization of the copyright industries, it probably would have had to invent an alternative legal structure to handle the licensing of collaborative works in the later years of the copyright terms of those works.”); Vai Io Lo, *Employee Inventions and Works for Hire in Japan: A Comparative Study Against the U.S., Chinese, and German Systems*, 16 TEMP. INT’L & COMP. L.J. 279, 305-06 (2002) (noting, in survey, that Japanese law requires “reasonable compensation if the employee assigns the right to obtain a patent, the patent right, or grant an exclusive license to the employer.”); Carolyn M. Salzmann, Comment, *You Commissioned It, You Bought It, But Do You Own It? The Work for Hire: Why Is Something So Simple, So Complicated?*, 31 U. TOL. L. REV. 497 (2000) (focusing on a writing requirement for work for hire in order to clarify ownership); Colleen Creamer Fielkow, Note, *Clashing Rights Under United States Copyright Law: Harmonizing an Employer’s Economic Right with the Artist-Employee’s Moral Rights in a Work Made for Hire*, 7 DEPAUL-LCA J. ART & ENT. L. 218, 220 (1997) (reviewing potential conflicts between work for hire and employee-authors’ moral-rights); Shannon M. Nolley, Note, *The Work for Hire Doctrine and the Second Circuit’s Decision in Carter v. Helmsley-Spear*, 7 DEPAUL-LCA J. ART. & ENT. L. 103, 128 (1996) (examining the independent contractor vs. employee aspects of work for hire); Jennifer Sutherland Lubinski, Note, *The Work for Hire Doctrine under Community for Creative Non-Violence v. Reid: An Artist’s Fair Weather Friend*, 46 CATH. U. L. REV. 119, 125 (1996) (arguing for revamp of *Reid* test to better benefit artists and incentivize creation of more works); Alan Hyde & Christopher W. Hager, *Promoting the Copyright Act’s Creator-Favoring Presumption: “Works Made for Hire” Under Aymes v. Bonelli & Avtec Systems, Inc. v. Peiffer*, 71 DENV. U. L. REV. 693, 716-717 (1994) (primarily

ruling (*Reid*) on that issue. Moreover, the rise of the so-called “gig economy,” where companies treat workers as independent contractors rather than employees, may also explain why many focus on the rights of contractors versus those who hire them. By contrast, commentary on the scope of employment test has been meager, with some exceptions noted below. The same is true in the leading treatise on copyright law.⁶²

That said, several articles provide useful background for the issues analyzed here. A student note comes perhaps closest to the issues presented here, by contrasting copyright and patent rights in employee-created software.⁶³ Another commentator, in a detailed overview of the allocation of ownership interests in works created by employees, advocates for “an interpretive rule operating in favor of the employee” given that “[e]mployers are likely to attempt broad and vague definitions of the job description” in order to satisfy the first factor of the scope of employment test.⁶⁴ Finally, a definitive history of the work for hire concept and the transition to employer

examining employee versus contractor case law and approving the concept that absent a written agreement, authors may often own their creations); Anne Marie Hill, Note, *The “Work for Hire” Definition in the Copyright Act of 1976: Conflict Over Specially Ordered or Commissioned Works*, 74 CORNELL L. REV. 559, 564-66 (1989) (early work assessing pre-*Reid* case law); Jon L. Roberts, *Work Made for Hire: The Fiction, the Reality, and the Impact Upon Software Development*, 1 HARV. J. L. & TECH. 97, 128 (1988) (addressing early employee versus contractor case law); Rochelle Cooper Dreyfus, *The Creative Employee and the Copyright Act of 1976*, 54 U. CHI. L. REV. 590, 638-47 (1987) (examining work for hire law primarily in the context of academic versus university control over scholarly output).

⁶² That treatise provides a general summary, with only a few case citations on “scope of employment” disputes, outside of a long section of disputes between universities and academics. See 1 MELVILLE B. NIMMER AND DAVID NIMMER, NIMMER ON COPYRIGHT §§ 5.03[B][1][b][i]-[ii] (Matthew Bender, Rev. Ed. 2018).

⁶³ David Loretto, Note, *Employee Patents on Computer-Implemented Inventions: The Conundrum of Separate Ownership of Patent and Copyright*, 23 CARDOZO L. REV. 705, 711 n.35, 727-28 (2002) (noting possibility of conflicting rights in software covered by copyright and trade secret law and primarily addressing potential conflicts between business-method patents (as patent law stood at that time), employer shop rights, and copyright law). See also Joshua L. Simmons, *Inventions Made for Hire*, 2 N.Y.U. J. OF INTELL. PROP. & ENT. L. 1, 46 (2012) (comparing development of work for hire doctrine to incremental development of patent-related concepts like the hired-to-invent doctrine and the shop right doctrine, and arguing that patent law should cease requiring written inventor assignments and instead adopt an umbrella ownership doctrine like work for hire).

⁶⁴ Michael D. Birnhack, *Who Owns Bratz? The Integration of Copyright and Employment Law*, 20 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 95, 152-53, 157-59, 162 (2009) (seeking “the most efficient and fair rule of initial allocation of copyright in works created by authors in the workplace”).

ownership of employee work product sheds light on the origins of the conundrum this essay addresses.⁶⁵

B. The Scope of Employment Case Law is More Balanced

The manner in which courts have analyzed the three-part scope of employment test in work for hire disputes is noticeably different from the analysis seen in invention assignment disputes. As described in the cases summarized here, courts tend to focus most on the first and third factors of that test. And in contrast to invention assignment agreement law, employees prevail more often because the three factors are more employee-friendly.

Case Law on Factor One (Hired to Perform): So long as the employee's job description/job duties are of the same general category as the copyrightable work, employers tend to win on the first factor – even if the work is only incidentally related to the employee's job duties. The employer's provision of guidance and supervision to the employee weighs in the employer's favor as well.⁶⁶ At the same time (and even if the work might be incidentally related to the scope

⁶⁵ See Catherine L. Fisk, *Authors at Work: The Origins of the Work-for-Hire Doctrine*, 15 YALE J.L. & HUMAN. 1 (2003) (covering the nineteenth century, the creation of the work for hire doctrine under the 1909 Copyright Act, and modern developments).

⁶⁶ For cases where the employer wins on factor one, see *Lewis v. Activision Blizzard, Inc.*, No. C 12-1096 CW, 2013 U.S. Dist. LEXIS 149784, at *10 (N.D. Cal. Oct. 17, 2013) (where employer and former employee clashed over employee's voice recording used in video games, first factor favored employer where employee handbook listed creation of game content as a job role); *Molinelli-Freytes v. Univ. of P.R.*, No. :09-1655(DRD), 2012 U.S. Dist. LEXIS 143262, at *32-37 (D.P.R. Sept. 30, 2012) (granting summary judgment to employer over faculty member's proposal for a graduate program; even though employee worked on vacations and holidays, that second factor mattered less where work was clearly of the type employee was hired to perform); *Fleurimond v. N.Y. Univ.*, 876 F. Supp. 2d 190, 201-09 (E.D.N.Y. 2012) (granting summary judgment to employer, which met all three factors as to employee who created graphic design while employed to create such things, where she was expected to perform her job in part at home using her own equipment, and where "no reasonable juror could find that she was not motivated in large part to serve the interests of NYU."); *Rouse v. Walter & Assocs., LLC*, 513 F. Supp. 2d 1041, 1056-60 (S.D. Iowa 2007) (applying three-part test; on tangled fact pattern where professors argued that software program created in the course of sponsored university research was not a work for hire, court rejected argument because, among other things, the software development was within the duties they were "hired to perform," the software "was developed and tested on [university] computers" even if some work was done at home, and professors "were motivated at least in part" to further university research when creating the work); *Sterpetti v. E-Brands Acquisition, LLC*, No. 6:04-cv-1843-Orl-31DAB, 2006 U.S. Dist. LEXIS 21407, at *20-22 (M.D. Fla. Apr. 20, 2006) (where parties disputed ownership of pasta-making manual, employer prevailed on first factor because it asked the employee to create the manual and provided feedback, showing its creation was part of employee's job duties); *Genzmer v. Pub. Health Tr.*, 219 F. Supp. 2d 1275, 1281 (S.D. Fla. 2002) (employee hired as a doctor, but in fact his required research "included the drafting of computer programs" and job description was

of employment) the employer's disclaimer of the work is highly relevant, in contrast to the law of invention assignment contracts.⁶⁷ Conversely, if the employee is hired to do tasks in categories unrelated to the copyrightable work, the employee tends to prevail on the first scope of employment factor.⁶⁸

broad enough to cover "the development of the computer program at issue"; in addition, employee's supervisor gave him "guidance and praise" for the software); *Avtec Sys., Inc. v. Peiffer*, No. 92-463-A, 1994 WL 791188, at *3-4 (E.D. Va. 1994) (employer won first factor in software case because employee's job description including writing programs and implementing computer simulation, and because at his employment, employee had generated similar software, and because employer had been able to use the work to "win a contract"), *aff'd*, No. 94-2364, 1995 WL 541610, at *1 (4th Cir. Sept. 13, 1995); *Miller v. CP Chems., Inc.*, 808 F. Supp. 1238, 1243 (D.S.C. 1992) (employee who wrote software was "not hired primarily for the development of computer programs," but "the development of the computer programs was at least incidental to his job responsibilities because it was 'within the ultimate objective of the principal and an act which it is not unlikely that a servant might do.'" (quoting RESTATEMENT (SECOND) OF AGENCY § 229 cmt. b (AM. LAW INST. 1958))).

⁶⁷ See *Roeslin v. District of Columbia*, 921 F. Supp. 793, 798 (D.D.C. 1995) ("It is unfair for the District to now claim that an activity it discouraged – developing the system – was within the scope of plaintiff's employment.").

⁶⁸ For cases where the employee wins on factor one, see *TAP Worldwide, LLC v. Becker*, No. CV 10-04903 DMG (JCx), 2010 WL 2757354, at *3-4 (C.D. Cal. July 12, 2010) (export manager of parts manufacturer, which did not develop or sell software, created software to expedite export shipments, usable by any company for a monthly fee; finding in favor of employee when employer moved for preliminary injunction because "[c]reating software was not within the scope of his job and no one else at the company was tasked with anything similar," employee identified a business need not specific to his employer "but in the business world generally," and created it "on his own time, not during working hours"; employer did not even learn about software until it terminated the employee); *Pavlica v. Behr*, 397 F. Supp. 2d 519, 525 (S.D.N.Y. 2005) (finding triable issue of fact for trial where high school teacher created a program to train high school students to conduct scientific research where teacher did so without prompting or direction from school, and where his intent was a model useful for any high school); *Moonstruck Design, LLC v. Metz*, 02 Civ. 4025 (RWS), 2002 U.S. Dist. LEXIS 14583, at *12-13 (S.D.N.Y. Aug. 12, 2002) (denying motion for preliminary injunction where former employer failed to meet any of the three tests; jewelry designer was not an employee at the time of creation, was hired only in a sales capacity, did not create the design during working hours, and was motivated by desire to honor his wife and other cancer survivors); *PFS Dist. Co. v. Raduechel*, 332 F. Supp. 2d 1236, 1248 (S.D. Iowa 2004) (employee was truck driver, not a software developer, so this factor favored employee); *Martin v. City of Indianapolis*, 982 F. Supp. 625, 633-34 (S.D. Ind. 1997) (going a little against the grain of some other cases cited here, finding that employee won on first factor because only a little of his work for employer involved ornamental metal work, but also because he demanded his own fee paid directly to him for artistic work, and his work on sculpture in question differed significantly from his "normal

Case Law on Factor Two (Employer's Time and Space): Much of the case law on the second scope of employment factor focuses on whether or not the work was done at the employer's facility, though the test as worded is broader than that inquiry. The focus is where the work was created, not where it was later used.⁶⁹ If job duties necessarily include working off-site, the fact that an employee creates the work at home may still favor the employer.⁷⁰ However, in many cases, the employee's work off-site means that the employee wins this factor.⁷¹

course of work"), *aff'd*, 192 F.3d 608 (7th Cir. 1999); *Roeslin*, 921 F. Supp. at 798 (employee hired as labor economist, not software programmer and was discouraged from pursuing project); *City of Newark v. Beasley*, 883 F. Supp. 3, 8 (D.N.J. 1995) (employee was police officer, but work on classroom training materials to teach young people not to steal cars was unknown to employer, and employee learned nothing from employer that assisted in project, so factor favored employee); *Quinn v. City of Detroit*, 988 F. Supp. 1044, 1051 (E.D. Mich. 1997) (employee was an attorney, not a programmer, employer never requested the work).

⁶⁹ See *Quinn*, 988 F. Supp. at 1051 (software created at home but later installed at work).

⁷⁰ See *Fleurimond*, 876 F. Supp. 2d at 201-09 (granting summary judgment to employer, which met all three factors as to employee who created graphic design while employed to create such things, where she was expected to perform her job in part at home using her own equipment, and where "no reasonable juror could find that she was not motivated in large part to serve the interests of NYU."); *Rouse*, 513 F. Supp. 2d at 1056-57 (applying three-part test; on tangled fact pattern where professors argued that software program created in the course of sponsored university research was not a work for hire, court rejected argument because, among other things, the software development was within the duties they were "hired to perform," the software "was developed and tested on [university] computers" even if some work was done at home, and professors "were motivated at least in part" to further university research when creating the work); *Sterpetti*, 2006 U.S. Dist. LEXIS 21407, at *27-28 (employee created pasta-making manual offsite, but at employer's direction, so employer prevailed on second factor); *Genzmer*, 219 F. Supp. 2d at 1282 (employee was involved in research and thus would not have been at clinic seeing patients; "it follows that he would not have developed the software" at the employer's facility).

⁷¹ See *Moonstruck Design*, 2002 U.S. Dist. LEXIS 14583, at *12-13 (S.D.N.Y. Aug. 12, 2002) (denying motion for preliminary injunction where former employer failed to meet any of the three tests; jewelry designer was not an employee at the time of creation, was hired only in a sales capacity in any event, did not create the design during working hours, and was motivated by desire to honor his wife and other cancer survivors); *Raduechel*, 332 F. Supp. 2d at 1248 (software work done at home with employee's own equipment and software licensed to other companies; employee did later modify software for use at employer but factor favored employee); *Martin*, 982 F. Supp. at 634 (off-site and on own time); *Roeslin*, 921 F. Supp. at 798 (employee created software in 3000 hours of work at home, fact that he later used it at work immaterial); *Beasley*, 883 F. Supp. at 8 (police officer created anti-car theft training materials solely off-site, and thus factor favored employee); *Avtec*, No. 94-2364, 1994 WL 791188, at *4-5 (employee created software at home and with own equipment, even though he later used it at work).

That said, prevailing on the second factor may not favor the employee overall if the work was done during the time the employee was employed. Courts may not find the second factor determinative if the employer has prevailed on the first and third factors.⁷²

Case Law on Factor Three (Employee's Purpose): Sometimes there are cases where the employee did not seek to benefit the employer, beyond any doubt.⁷³ And sometimes the employee's copyrightable work is developed in tandem with work done for the employer, so that it cannot reasonably be anything other than a work for hire.⁷⁴

However, most cases are closer. Many involve a situation where an employee created something at home, used it at work but also for other purposes, and was motivated by both personal motives and a desire to help the employer. As noted above, the second factor can be discounted if the other factors are in the employer's favor. That makes sense, as otherwise an employee could create something at home and automatically get ownership of it, no matter how closely it relates to his or her job role.

So where do courts draw the line when the employee may have had mixed motives? In general, the motivation to assist the employer need only be partial; it need not be the sole motivation. The employee must be at least "appreciably" motivated by a desire to serve the employer's goals.⁷⁵ But what does this mean? Greater than a 50 percent motivation to serve those goals? Something

⁷² See, e.g., *Miller v. CP Chems., Inc.*, 808 F. Supp. 1238, 1243 (D.S.C. 1992) ("On the other hand, the work was performed during the time period in which he was employed by [employer].").

⁷³ See *Food Lion, Inc. v. Capital Cities/ABC, Inc.*, 946 F. Supp. 420, 421-22 (M.D.N.C. 1996) (journalists working as undercover employees made secret tapes of employer's working conditions, employer tried to claim the tapes as works for hire to suppress them; the court rejecting this stratagem as not meeting any "reasonable interpretation of scope of employment").

⁷⁴ See *Lewis v. Activision Blizzard, Inc.*, No. C 12-1096 CW, 2013 U.S. Dist. LEXIS 149784, at *13-14 (N.D. Cal. Oct. 17, 2013) (employer easily prevailed where employee created sound recording at employer's request, for employer's purposes, and under employer's supervision); *Quinn*, 988 F. Supp. at 1052; *Miller*, 808 F. Supp. at 1243-44 (employee's software was "created to simplify [employee's] job and to eliminate errors," employer asked employee to develop similar software for other company products, and all software related specifically to a product made by the employer).

⁷⁵ See *Avtec Sys., Inc. v. Peiffer*, 21 F.3d 568, 572 (4th Cir. 1994) (as to the third scope of employment factor, the employer must show that the employee "was at least 'appreciably' motivated by a desire to further its corporate goals[.]" (citing RESTATEMENT (SECOND) OF AGENCY § 226 cmt. b (AM. LAW INST. 1958)) ("The fact that the predominant motive of the servant is to benefit himself or a third person does not prevent the act from being within the scope of employment. If the purpose of serving the master's business actuates the servant to any appreciable extent, the master is subject to liability[.]")).

else? The cases do not nail it down with precision. Both the employer⁷⁶ and the employee⁷⁷ can prevail on this factor.

⁷⁶ For cases where the employer wins on factor three, *see* *Fleurimond v. N.Y. Univ.*, 876 F. Supp. 2d 190, 201-09 (E.D.N.Y. 2012) (granting summary judgment to employer, which met all three factors as to employee who created graphic design while employed to create such things, where she was expected to perform her job in part at home using her own equipment, and where “no reasonable juror could find that she was not motivated in large part to serve the interests of NYU.”); *Le v. City of Wilmington*, 736 F. Supp. 2d 842, 845-51 (D. Del. 2010) (on summary judgment by employer, municipal employee hired as Information Analyst who created an “Instant Ticketing” program for a city department of licensing and inspections to use in lieu of paper tickets did not own the software, even though he wrote the software “essentially exclusively on his own time, on his own computer at home,” because his purpose was “to facilitate the City’s business of issuing tickets,” and did so at the direction of a supervisor, received input from other employees, and used code previously used for city-owned software); *Rouse v. Walter & Assocs., LLC*, 513 F. Supp. 2d 1041, 1056-57 (S.D. Iowa 2007) (applying three-part test; on tangled fact pattern where professors argued that software program created in the course of sponsored university research was not a work for hire, court rejected argument because, among other things, the software development was within the duties they were “hired to perform,” the software “was developed and tested on [university] computers” even if some work was done at home, and professors “were motivated at least in part” to further university research when creating the work); *Sterpetti v. E-Brands Acquisition, LLC*, No. 6:04-cv-1843-Orl-31DAB, 2006 U.S. Dist. LEXIS 21407, at *18-19 (M.D. Fla. Apr. 20, 2006) (employee’s ideas about “gaining personal benefit” from creation of pasta-making manual insufficient where he clearly created manual at employer’s behest, showing at least a partial motivation to server the employer’s interests); *Genzmer v. Pub. Health Tr.*, 219 F. Supp. 2d 1275, 1283 (S.D. Fla. 2002) (employee claimed vague personal reasons, but evidence showed that he “tailored” software to “fit [employer’s] needs”).

⁷⁷ For cases where the employee wins on factor three, *see* *Moonstruck Design, LLC v. Metz*, 02 Civ. 4025 (RWS), 2002 U.S. Dist. LEXIS 14583, at *12-13 (S.D.N.Y. Aug. 12, 2002) (denying motion for preliminary injunction where former employer failed to meet any of the three tests; jewelry designer was not an employee at the time of creation, was hired only in a sales capacity in any event, did not create the design during working hours, and was motivated by desire to honor his wife and other cancer survivors); *Avtec*, 21 F.3d at 572 (“appreciably” standard); *Avtec Sys., Inc. v. Peiffer*, No. 92-463-A, 1994 WL 791188, at *6 (E.D. Va. 1994) (applying test, programmer created work off-site and later used it at work, but his conduct was consistent with a belief that he was the owner, and employer’s bonus payment could have been made “as a reward for [employee’s] willingness to utilize his own property for the benefit of his employer”); *PFS Dist. Co. v. Raduechel*, 332 F. Supp. 2d 1236, 1248-49 (S.D. Iowa 2004) (where employee had previously licensed software to other companies and then modified it to work with employer’s system, not enough to favor employer on third factor); *Roeslin v. District of Columbia*, 921 F. Supp. 793, 798 (D.D.C. 1995) (court found evidence that employee was primarily creating software for self-motivation and to create job opportunities for himself, so fact

Some courts, such as the *Beasley* and *Roeslin* cases cited below, suggest that looking at the employee's subjective beliefs is one approach to analyzing the third scope of employment factor. One court made this approach the dispositive test. In *Martin v. City of Indianapolis*, the court, relying on the Restatement (Second) of Agency section 235, comment (a), stated that "[t]he state of mind of the employee is the material determination; the court may consider the employee's actions or other manifestations only as evidence of the employee's state of mind."⁷⁸ Under that sort of analysis, the employee won easily, because he claimed that his sculpture was a personal project, that he did not get paid for it, spent a lot of time on it, worked on it in his free time, signed an agreement calling himself the "owner" of it, and was, apart from his work for the employer, "a serious, independent artist who uses stainless steel as a medium." Focusing on the employer's potential economic motivations, the court noted that the work was not created in order for the employer to get a commercial benefit, as it never sold the work to a customer.⁷⁹

Another way to consider the question is to look to whether the employee was doing the work for a third party at the time – as doing the work for someone else is surely relevant to whether the work was done "appreciably" for the employer. In one case, the work in question (a bag design) was of the type the employee was hired to do, and the first factor favored the employer. However, the work was not a work for hire, because the employee created the design for a third party, assigned it to that third party, and was paid directly by the third party. Thus, the design was not "actuated by a purpose to serve [the employer's] interest."⁸⁰

Overall, an employer can win on the first factor but still lose the third, and the focus – however a court words it – appears to be whether some significant percentage of the employee's subjective motive was to help the employer, focusing on the time the work was created.⁸¹ Because the law

that software also benefited his employee immaterial); *City of Newark v. Beasley*, 883 F. Supp. 3, 9 (D.N.J. 1995) (police officer intended that many cities, not just his own, might purchase his training materials; even though he believed his employer might be one customer for his work, that was not enough).

⁷⁸ See *Martin v. City of Indianapolis*, 982 F. Supp. 625, 634-35 (S.D. Ind. 1997), *aff'd*, 192 F.3d 608 (7th Cir. 1999).

⁷⁹ See *id.*

⁸⁰ See *Cannon Grp., Inc. v. Better Bags, Inc.*, 250 F. Supp. 2d 893, 901 (S.D. Ohio 2003).

This case is atypical, however, as the employer was not a party. The party holding the assignment was the cross-plaintiff in an infringement case, and the cross-defendant was trying to undermine the cross-plaintiff's copyright registration. There was nothing in the case about whether the employee had been permitted to do the work for the third party while employed, and the court appeared to be moving hastily to shut down the cross-defendant's strained attempt to defeat the cross-plaintiff's copyright. The employer was not present to argue its own case for a work for hire. In other words, courts may be less exacting when an accused third party infringer tries to invalidate the copyright on some technicality.

⁸¹ Some courts, of course, find the evidence in conflict, and hold that a trial is necessary. *E.g.*, *Koenig v. Dowdy*, No. 5:15-CV-00347-RN, 2017 U.S. Dist. LEXIS 163850, at *19 (E.D.N.C. Sept. 28, 2017) (denying motion for summary judgment as to copyright ownership where, among

of invention assignment contracts does not expressly consider the employee's intent when creating intellectual property, this consideration of the employee's state of mind is quite different from the analyses seen under that body of law.

IV

IS WORK FOR HIRE LAW INCONSISTENT WITH INVENTION ASSIGNMENT LAW?

This review of the work for hire doctrine and the law of invention assignment agreements shows why there is seemingly a direct conflict between them. Where an employee creates something that is both copyrightable and that could be an employer-assigned trade secret, the outcome of an ownership dispute could differ.

Unlike trade secrets and patent rights, trade secrets and copyrightable works are categories of intellectual property that can exist concurrently in the same work. Indeed, because the Copyright Act does not preempt state trade secret law, courts deem that confidentiality requirements sufficiently distinguish a state law trade secret cause of action from a copyright infringement cause of action. A plaintiff with ownership rights under both can theoretically pursue both causes of action against a defendant regarding the same work.⁸²

Thus, it follows that when an employee creates new work, that work might constitute the employer's trade secret – if it meets the conditions for automatic invention assignment under the employment agreement – and it also might constitute the employer's work for hire – again, if the conditions for the scope of employment test are satisfied. In many cases, especially for routine situations where the employee creates work for the employer in the ordinary course of business, both tests will easily be satisfied, and nobody would imagine otherwise.⁸³

However, on the margins, where employees create work outside the workplace and for outside purposes, the two tests can dictate different results as to the same work by the same employee. To begin with, the invention assignment analysis is *disjunctive* – the employer need only satisfy

other things, third work for hire factor was subject to disputed evidence over an architectural house plan created by an employee/architect); *Bell v. Maloney*, No. 1:16-cv-01193-RLY-DML, 2017 U.S. Dist. LEXIS 111867, at *4-5 (S.D. Ind. July 19, 2017) (triable issues of fact on all three factors where attorney took photo that was used on law firm's website and parties disputed ownership).

⁸² Federal courts agree that trade secret causes of action are not copyright-preempted. *E.g.*, *GlobeRanger Corp. v. Software AG USA, Inc.*, 836 F.3d 477 (5th Cir. 2016) (collecting cases from other circuits and joining them). Notably, with the May 2016 enactment of the federal Defend Trade Secret Act, no preemption analysis is necessary as to a cause of action for trade secret misappropriation brought under federal law. *See generally* Defend Trade Secrets Act of 2016, Pub. L. No. 114-153, 18 U.S.C. §§ 1831-1839, 130 Stat. 376.

⁸³ For example, in the well-known California case, *Cubic Corp. v. Marty*, 229 Cal. Rptr. 828, (Ct. App. 1986), the employee's work product in dispute included a "manuscript describing his invention," which surely would have been a work for hire under the facts, where the employer easily prevailed under its invention assignment contract. *Id.* at 830.

one of the conditions for ownership, such as demonstrating that its equipment was used. By contrast, the work for hire analysis is *conjunctive* – the employer must show all three factors, or at least such a strong showing on the first and third that the second is discounted.

Second, the invention assignment analysis is agnostic to an employee's job role. If the receptionist writes software that relates to the employer's business, and if the receptionist signed an invention assignment contract, the employer owns the work even if the receptionist programmed it during off-hours and away from the office. The invention assignment contract thus reaches beyond the common law "hired to invent" test for employee ownership, as discussed above. Again, by contrast, the work for hire scope of employment test looks to the employee's job role as the first factor of the analysis, thereby providing a narrower path to employer ownership.

Perhaps most importantly, the invention assignment analysis is agnostic to the employee's motive or intent. Even if an employee creates an off-site work in anticipation of a new job or creating a new company, that motive is not relevant if the work is found to relate to the employer's business or relate to its demonstrably anticipated research and development.⁸⁴ But as discussed above, the third factor of the work for hire scope of employment test significantly considers the employee's motive.

With these differences in mind, there are many decisions where the outcome might have differed depending on which of the two doctrines the court focused on (or perhaps more accurately, the doctrine the employer focused on when bringing the lawsuit).

One example where a conflict might have arisen had the court spent more time on the employer's invention assignment claim was a 2004 ruling from the Southern District of Iowa, *PFS Distribution Co. v. Raduechel*. There, the employee was a truck driver for a poultry plant. A self-taught programmer, he created software at home for an order entry system. The employee licensed his software to two unrelated businesses and later created a version for use by his employer, brought it on site and installed it, and tailored it for the employer's business.⁸⁵

After the company was acquired and cut salaries, the employee and a co-worker planned a mass departure for a new venture, engaging in significant misconduct that led to a preliminary injunction.⁸⁶ However, the employer's claim to ownership of the truck driver's order entry software faltered because the court agreed that the employee owned the work under the work for hire doctrine. He was not hired to program, he created the work at home and even licensed it to others before bringing it to work, and his purpose in creating it was not to serve the employer.⁸⁷

⁸⁴ *E.g.*, CAL. LAB. CODE §§ 2870-72 (West 1979). As noted, however, it remains unclear whether an employer could meet these tests where the employee had no notice of related work by a large, far-flung employer.

⁸⁵ *PFS Dist. Co. v. Raduechel*, 332 F. Supp. 2d 1236, 1240 (S.D. Iowa 2004).

⁸⁶ *See id.* at 1240-43, 1246-47, 1251-53.

⁸⁷ *See id.* at 1247-49.

Raduechel is possibly the only case where a court considered a work for hire dispute alongside a claim for breach of an invention assignment contract. Had the court spent more time analyzing the latter, it might have recognized a potential conflict. After all, the employee's software surely related to the employer's business, and at least a version of it was modified for use at the employer's facility and presumably on its equipment. Under the employer-friendly regime of invention assignment law, perhaps the court might have found that the employer owned at least a portion of the work. However, the court appears to have brushed off the employer's invention assignment cause of action, having already decided the work for hire issue and quickly concluding that the result was the same under the employer's contract claim.⁸⁸

Another case illustrating the potential conflict is a 2010 ruling from the Central District of California, *TAP Worldwide, LLC v. Becker*. There, the employer sold "off-road parts and accessories." The employee prevailed in a work for hire dispute over ownership of a software program he wrote to expedite the processing of export shipments.⁸⁹ He had created the work on his own time, and based on his own "market research," without using the employer's equipment.⁹⁰ The employer sought ownership and an order requiring the former employee to "restore access" to the software, but lost on all three work for hire scope of employment factors.⁹¹ Would the result have been the same if the employer had sued for breach of an invention assignment agreement? In California, it would need only show that the work related to its business, and not that the employee was hired to create that type of work, or that the employee was motivated by a purpose to serve the master.⁹²

Perhaps the case that comes closest to demonstrating the conflict between the work for hire doctrine and invention assignment law is a 1994 Fourth Circuit case where an employee's ownership of the copyright in a work precluded the employer's dueling claim to trade secret rights in the same information. In *Avtec Systems, Inc. v. Peiffer*, the employer provided simulations of orbital patterns to the federal government. The employee, whose job duties included computer simulations for satellite orbits, wrote a software program for that purpose, but did so on his own time. The company used the program as a marketing tool, and other employees suggested modifications. However, the employee later licensed the program to a third party.⁹³

⁸⁸ See *id.* at 1249. The court spent all of five sentences on the invention assignment claim, and found that "[d]ue to the insufficiency of the evidence to establish the database software as a 'work for hire,' or otherwise rightfully owned by plaintiffs, the Court declines to award injunctive relief that ordinarily might be warranted by this claim."

⁸⁹ *TAP Worldwide, LLC v. Becker*, No. CV 10-04903 DMG (JCx), 2010 WL 2757354, at *1 (C.D. Cal. July 12, 2010).

⁹⁰ See *id.* at *1, 3.

⁹¹ See *id.* at *4-5.

⁹² See CAL. LAB. CODE § 2870 (West 1979).

⁹³ This factual summary is taken from the Fourth Circuit's first appellate ruling in the case. *Avtec Sys., Inc. v. Peiffer*, 21 F.3d 568, 569-70 (4th Cir. 1993). See also *Avtec Sys., Inc. v. Peiffer*, 805 F. Supp. 1312, 1315-17 (E.D. Va. 1992).

After a confusing bench trial ruling where the lower court found that the employee owned the copyright but the employer held a “shop right” and/or a “trade secret” in the same work, the Fourth Circuit remanded for clearer findings on the work for hire question. Crucially, the court rejected the notion that an employee’s copyright ownership could be undermined by an employer’s trade secret claim to the same information. Noting that copyright ownership confers a right of publication and distribution, while trade secret rights depend on non-publication and secrecy, the court held that “Avtec offers no authority, and we have found none, for the proposition that the alleged ‘owner’ of a trade secret . . . could maintain the secrecy of material that is subject under federal law to publication at the will of another.”⁹⁴

Ultimately, after remand, the Fourth Circuit affirmed a ruling that the employee owned the copyright under the work for hire factors, and confirmed that an employee-owner of a copyrighted work cannot be subject to an employer’s trade secret misappropriation claim over that work.⁹⁵

Although the employer brought trade secret and fiduciary duty causes of action against the employee rather than a breach of contract claim relating to invention assignment, that is a distinction without a difference for our purposes, as the intellectual property rights arising from an invention assignment contract would be trade secret rights. Thus, *Avtec* teaches that, should an employee prevail on copyright ownership under the work for hire analysis, an employer likely could not succeed in a breach of invention assignment claim over trade secret rights in the same work, as the conflicting trade secret claim would be void *ab initio*.⁹⁶

⁹⁴ *Avtec*, 21 F.3d at 575. This logic – that copyright ownership precludes a conflicting trade secret ownership claim in the same information – formed the basis for a 2002 ruling in the Eastern District of Texas, where a contractor’s ownership in a software program overrode the hiring company’s claim to trade secrets in the same program. *See Alcatel USA, Inc. v. Cisco Sys., Inc.*, 239 F. Supp. 2d 645, 659 (E.D. Tex. 2002). That case did not involve the work for hire doctrine because the author was an independent contractor, but its holding is consistent with the theme of this essay, that copyright ownership in some instances can conflict with dueling claims under other categories of intellectual property law.

⁹⁵ *See Avtec Sys., Inc. v. Peiffer*, No. 94-463-A, 1994 U.S. Dist. LEXIS 16946, at *11-19, 25-26 (E.D. Va. 1994) (although the employer prevailed on the first scope of employment factor, the employee won on the second and third factors; “Peiffer’s creation of the Orbit Program was too little actuated by a purpose to serve the master.”; rejecting employer’s trade secret claim and awarding no damages on breach of fiduciary duty claim), *aff’d*, No. 94-2364, 1995 WL 541610, at *1 (4th Cir. Sept. 13, 1995).

⁹⁶ Cases in this area appear to be exceedingly rare. In one odd Texas case, a court found that an employer’s state-law claims against a former employee (including trade secret misappropriation, conversion, and unjust enrichment) were preempted by the Copyright Act – a conclusion that would not be reached today at least as to a trade secret claim. Thus, a potential clash between the work for hire doctrine and trade secret ownership through an invention assignment agreement was averted. *See Butler v. Continental Airlines, Inc.*, 31 S.W.3d 642, 651-52 (Tex. App. 2000).

Given this under-analyzed conflict, an employee's potential copyright ownership of an outside-the-workplace creation may well be the dispositive question in clashes where an employee prepares work product for an outside opportunity while still employed. Litigants' choices about what law to focus on during ownership disputes over copyrightable works may be more important than has been recognized thus far.

CONCLUSION – THE USE-VALUE OF THE SCOPE OF EMPLOYMENT TEST

This essay is not about ownership of ordinary-course creative work performed in the workplace on behalf of an employer. It is instead about marginal cases where an employee, operating in good faith, avoids the employer's trade secrets, time, and equipment to start preparing for a new job, forming a new company, or simply creating for personal interest. That is the context where employer ownership is most debatable, and that is the context where the clash between the work for hire doctrine and invention assignment agreement law is sharpest.

As we have seen, it is not difficult to imagine a situation where an employee creates something outside the workplace that is both copyrightable and something an employer might claim as its trade secret through contractual assignment. Whereas the scope of employment analysis might provide that the employee was not hired to create the sort of work in question, did not create it with the employer's time or resources, and did not create it to serve the employer, invention assignment agreement law might find that the work nonetheless can be deemed "related" to the employer's business in some manner.

Heightening the risk for employees, these rules are not intuitive. The work for hire doctrine is barely a ripple in the ocean of intellectual property law. Reported invention assignment disputes over outside-the-workplace creations that are not clearly related to the employer's business are rare. Employees may not recognize that an employer may stretch invention assignment law to find ways to argue that the work relates to the employer's business in some unexpected fashion. And as discussed above, if the employee were unaware of that purported connection between his or her at-home work and some project contemplated by a far-flung, international employer, it is not clear that the employee's lack of notice would play a role in the analysis. In jurisdictions like South Carolina, invention assignment terms can reach beyond the grave, as it were, to allow past employers to claim ownership in work product created long after an employee's departure.

This potential for overreach endangers employee mobility and subjects new enterprises to aggressive legal claims by former employers. Many employees may begin creating work product for a new venture before leaving their current job. Some will break the rules in clear-cut ways, but others try to do the right thing, yet still face legal traps for the unwary. Not everyone can afford to quit and then start development work. And not everyone can afford legal advice before quitting.

How should such conflicts be resolved? And how can these issues be resolved in a manner fair to an employee operating in good faith? As to copyrightable work, one answer is that the work for hire rules should control over the trade secret-centered rules of invention assignment agreement law. That is not merely because copyright law is federal law while invention assignment law is

largely a matter of state contract and state statutory law.⁹⁷ After all, trade secret rights can now exist under federal law as well, and some aspects of invention assignment contracts are also matters of federal law.

Rather, the work for hire rules control because copyright ownership precludes a conflicting claim to trade secret ownership, whether via an invention assignment contract or otherwise. As the *Avtec* case explained, if an employee owns the copyright – and thus the right to disclose and publish the work – an employer’s conflicting trade secret claim is not possible because there can be no trade secret rights in something the adverse party has the freedom to disclose at will. To put it in the language of invention assignment law, an employee cannot agree to a future conveyance of a trade secret right that would be stillborn at the outset given overriding copyright ownership under the work for hire doctrine’s scope of employment test.

This outcome is the better result for outside-the-workplace creations where the employer’s ownership claim would require an attenuated argument that the employee’s at-home work “relates” to the employer’s business in some strained or unexpected manner – or where the employee had no notice that the employer was thinking of something similar in another office, or with a different engineering team. Where work product is copyrightable, the scope of employment test under the work for hire doctrine could become a tool to prevent overreaching, and thereby to protect departing employees.

To be sure, this is hardly the same as full reform of a confusing regime, as this prospect only applies in cases where the employee creates something copyrightable. People changing jobs face a confusing mix of potential claims, and this is only part of the difficulties they face.⁹⁸ Future essays in this series will examine others.

⁹⁷ See *DDB Techs., L.L.C. v. MLB Advanced Media, L.P.*, 517 F.3d 1284, 1289-90 (Fed. Cir. 2008) for the exception to this point.

⁹⁸ For example, the law of fiduciary duty may require that certain employees provide an “opportunity” to employers. The next essay in this series will focus on that “preparations to compete” context.

NEW YORK UNIVERSITY
JOURNAL OF INTELLECTUAL PROPERTY
AND ENTERTAINMENT LAW

VOLUME 8

FALL 2018

NUMBER 1

“PRIME HEALTH” AND THE REGULATION OF HYBRID
HEALTHCARE*

NICOLAS P. TERRY**

This article examines the possible constructs behind the announcement that Amazon, Berkshire Hathaway, and JPMorgan Chase & Co. are jointly building a new healthcare entity for their employees. In this article, I provide context by discussing and comparing the healthcare ambitions of the three largest information technology companies before arguing that various forms of hybrid entities will increase their footprint in healthcare data and delivery. The core of this discussion is a thought experiment about the nature of what I term “Prime Health.” That analysis is based initially on observations about Amazon’s existing culture and business model of Amazon. Thereafter I examine both what Prime Health could and should be. I argue that it will likely go beyond the pedestrian model of a very large self-funded group insurance plan; will disintermediate traditional healthcare insurers; and attempt to bring consumers and healthcare providers together into some type of online marketplace—an updated, privatized version of managed competition. In the final parts of the article I delve into the regulatory environment that hybrid healthcare generally, and Prime Health in particular, will face. This analysis includes federal device and data protection laws, a few idiosyncratic state laws, and a brief discussion of the problems inherent in the limited regulation of hybrid healthcare entities.

* © 2018 Nicolas Terry. All rights reserved. I express my thanks to Seema Mohapatra, Efthimios Parasidis, and Valerie Blake for their thoughtful comments on an earlier draft and to Emily Beukema for her editorial and research assistance.

** Hall Render Professor of Law, Executive Director, Hall Center for Law and Health, Indiana University Robert H. McKinney School of Law. Email: npterry@iupui.edu.

INTRODUCTION.....	43
I. HYBRID TYPOLOGY	46
A. <i>Apple</i>	47
B. <i>Alphabet</i>	49
C. <i>Amazon</i>	50
II. HOW THE AMAZON MODEL MAY FRAME PRIME HEALTH	52
A. <i>Data Driven</i>	54
B. <i>Combining the Digital with the Physical</i>	54
C. <i>Customer-Facing</i>	56
D. <i>Reading the Gawande Tea Leaves</i>	58
III. WHAT PRIME HEALTH COULD OR SHOULD BE.....	60
A. <i>Strategic Options</i>	60
B. <i>The Customers</i>	62
C. <i>Friction and Intermediaries</i>	63
D. <i>Managed Competition: HillaryCare for the Digital Age</i>	68
E. <i>Delivery and Services</i>	69
F. <i>Caveats</i>	71
IV. REGULATING HYBRID HEALTHCARE.....	72
A. <i>Applicability of Federal Law</i>	73
1. <i>Drug and Device Regulation</i>	73
2. <i>Data Protection</i>	75
3. <i>Insurance, ERISA, and Fiduciary Duties</i>	77
B. <i>Applicability of State Laws</i>	78
1. <i>Corporate Practice of Medicine Doctrine</i>	80
2. <i>Certificate of Need Laws</i>	81
V. (HOW) SHOULD HYBRID HEALTHCARE BE REGULATED?	83
CONCLUSION	88

INTRODUCTION

Healthcare is no stranger to dramatic headlines. However, a short press release in January 2018 was not only the mother of all healthcare stories but also desperately short on detail. In a joint press release, Amazon, Berkshire Hathaway, and JPMorgan Chase & Co. announced they were founding an independent company focusing on “technology solutions that will provide U.S. employees and their families with

simplified, high-quality, and transparent healthcare at a reasonable cost.”¹ According to Berkshire Hathaway Chairman and CEO, Warren Buffett:

The ballooning costs of healthcare act as a hungry tapeworm on the American economy. Our group does not come to this problem with answers. But we also do not accept it as inevitable. Rather, we share the belief that putting our collective resources behind the country's best talent can, in time, check the rise in health costs while concurrently enhancing patient satisfaction and outcomes.²

Commentators and interviewees responded to this announcement with heady optimism about healthcare reform while the stock prices of traditional healthcare stakeholders came under pressure.³ The *Economist* hailed the announcement with the headline “A digital revolution in health care is coming.”⁴

A few months before the press release, there were rumors that Amazon had a secret “skunkworks” healthcare team codenamed 1492.⁵ But even today, there is very little information about what Amazon and its two partners—Berkshire Hathaway and JPMorgan Chase & Co.—intend, let alone whether it portends a “revolution.” We do know it will be independent of its founding companies, non-profit, and based in Boston.⁶ Still, at the time of this writing, it doesn’t even have a name. Herein the corporate entity will be referred to as “ABJ” and the service/product as “Prime Health.”

Nevertheless, there is some evidence that Amazon and its partners are not just building a better healthcare service but are considering a novel healthcare model designed to eliminate or minimize some well-known problems with U.S. healthcare.

¹ Press Release, Amazon, Berkshire Hathaway & JPMorgan Chase & Co., Amazon, Berkshire Hathaway and JPMorgan Chase & Co. to Partner on U.S. Employee Healthcare (Jan. 30, 2018), [https://www.businesswire.com/news/home/20180130005676/en/Amazon-Berkshire-Hathaway-JPMorgan-Chase-partner-U.S.](https://www.businesswire.com/news/home/20180130005676/en/Amazon-Berkshire-Hathaway-JPMorgan-Chase-partner-U.S)

² *Id.*

³ Carolyn Y. Johnson, *Amazon, Berkshire Hathaway and JP Morgan Chase Join Forces to Tackle Employees' Health-care Costs*, WASH. POST: WONKBLOG (Jan. 30, 2018), <https://www.washingtonpost.com/news/wonk/wp/2018/01/30/amazon-berkshire-hathaway-and-jp-morgan-chase-join-forces-to-tackle-employees-health-care-costs/>?

⁴ *Doctor You*, ECONOMIST, Feb. 3, 2018, at 11.

⁵ Eugene Kim & Christina Farr, *Amazon 1492: Secret Health Tech Project*, CNBC (July 26, 2017, 5:30 PM), <https://www.cnbc.com/2017/07/26/amazon-1492-secret-health-tech-project.html>.

⁶ Jessica Bartlett, Health Care Venture Co-Founded by Amazon to Be Based in Boston, Bos. Bus. J. (June 20, 2018, 10:09 AM), <https://www.bizjournals.com/boston/news/2018/06/20/healthcare-venture-co-founded-by-amazon-to-be.html>.

These problems include access difficulties (particularly for the very poor and the poor); high and increasing prices and costs (including insurance costs, prescription drug costs, and cost-shifting); substandard care coordination; an incoherent delivery model involving multiple types of entities and financing or reimbursement models; and severe deficiencies in data management and sharing.

At root, many of these problems are a function of friction, as multiple stakeholders exhibit inefficiencies, create indeterminacies, and create informational problems all while generally failing to coalesce with their fellow stakeholders. For a company like Amazon, which has figured out a way to reduce friction and combine its digital and physical presence, U.S. healthcare's complexity and resistance to reform must be frustrating. And, now perhaps, ABJ sees an opportunity.

This article provides a framework for understanding how the largest technology companies view healthcare and their roles in healthcare's future. I contrast their approaches and their relationships with traditional healthcare stakeholders, label them as hybrids, and contrast their healthcare interests. Amazon emerges from this analysis as a positive outlier because of its existing role as a retailer of physical healthcare goods, its unique approach to combining digital and physical products, and its participation in ABJ's ambitious healthcare financing and delivery project. I argue that Prime Health will be more than the sum of its parts and that it will attempt to remove (i.e. disintermediate) some intermediary stakeholder from the healthcare value chain, thereby establishing a new healthcare marketplace. (That is, that Prime Health will cut out certain middle persons from various healthcare transactions.) Further, I analyze how this imagined Primed Health will raise issues of over-regulation and under-regulation.

Part II provides context, discussing the businesses and likely conceptions of healthcare among the major technology companies that have been explicit about their healthcare ambitions: Apple, Alphabet, and Amazon. That discussion leads to a tentative conclusion that their healthcare plays will result in differentiated hybrid entities that combine disruptive technologies with novel approaches to brick-and-mortar businesses. Part III projects the properties of Prime Health, assuming it is based on the existing culture and business model of Amazon. Part IV, working with minimal evidence and relatively unrestrained conjecture, examines both what Prime Health *could* and *should* look like if it departs from Amazon's existing culture and business model. This part argues that it will (i) go beyond the pedestrian model of a very large self-funded group insurance plan, (ii) disintermediate traditional healthcare insurers, and (iii) attempt to bring consumers and healthcare providers together into an online marketplace (i.e. an updated, privatized version of managed competition). Part V discusses how current healthcare regulation (which was drafted

with traditional, brick-and-mortar healthcare entities in mind) will apply to these new hybrid entities, with particular attention paid to Prime Health. Part VI highlights some specific concerns about the under-regulation of high technology companies as they broaden their grip on economic activities and healthcare in particular.

I HYBRID TYPOLOGY

The involvement of high technology companies in healthcare is not new. While some mythologize the progress of traditional health information technologies such as electronic health records,⁷ information technology companies have been part of the health puzzle for a while, albeit without notable effect.⁸

Recently, however, strong evidence has surfaced that the largest technology companies are targeting healthcare with increased interest. Technology companies are investing more heavily in health-related ventures,⁹ services such as Uber are participating in non-emergency medical transportation,¹⁰ and key functions such as ICU monitoring are being outsourced to remote providers.¹¹ At the highest level, some seek to be agents of change and insert their technologies or business strategies into healthcare. While the “big three”—Apple, Amazon, and Alphabet (Google’s parent company)—have been explicit, others such as Facebook are believed to have similar ambitions.¹²

⁷ Vindell Washington et al., *The Hitech Era and the Path Forward*, 377 NEW ENG. J. MED. 904 (2017).

⁸ See Nicolas P. Terry, *Information Technology’s Failure to Disrupt Healthcare*, 13 NEV. L.J. 722 (2013).

⁹ Natasha Singer, *How Big Tech Is Going After Your Health Care*, N.Y. TIMES (Dec. 26, 2017), <https://www.nytimes.com/2017/12/26/technology/big-tech-health-care.html> (“In the first 11 months of [2017], 10 of the largest tech companies in the United States were involved in health care equity deals worth \$2.7 billion, up from just \$277 million for all of 2012.”).

¹⁰ Ann M. Marciarille, *Uberizing Nonemergency Medical Transportation*, PRAWFSBLAWGS (Jan. 19, 2018, 8:31 PM), <http://prawfsblawg.blogs.com/prawfsblawg/2018/01/uberizing-nonemergency-medical-transportation.html>.

¹¹ See Chiedozie Udeh et al., *Telemedicine/Virtual ICU: Where Are We and Where Are We Going?*, 14 METHODIST DEBAKEY CARDIOVASCULAR J. 126 (2018).

¹² E.g., Christina Farr, *Facebook Sent a Doctor on a Secret Mission to Ask Hospitals to Share Patient Data*, CNBC (Apr. 5, 2018, 2:01 PM), <https://www.cnbc.com/2018/04/05/facebook-building-8-explored-data-sharing-agreement-with-hospitals.html> (examining evidence from several sources on Facebook’s desire to link their data with healthcare data to improve services).

In decoding the announcements and activities of these companies, it is clear that there is not one model of technologically-mediated care but several. While Apple, Amazon, and Google may all be seeking to disrupt, or at least transform, healthcare, their business models and strategies are quite different. As the *New York Times* notes, “[e]ach tech company is taking its own approach, betting that its core business strengths could ultimately improve people’s health.”¹³

As a result, these interventions into the healthcare space or even attempted disruptions of incumbents by technologically-equipped market entrants cannot be reduced to a binary. It remains unlikely that either the brick-and-mortar business typified by traditional healthcare systems or the pure technological model favored by Apple will emerge victorious. It is more probable that the conquering business will be a hybrid, as was true for their disruption of other markets. For example, Amazon built its disruptive business on a digital platform for selling books yet has now opened some physical bookstores.¹⁴ Similarly, AmazonFresh began as a product category, an extension of Amazon’s delivery service,¹⁵ but its strategic potential changed after the company’s purchase of the brick-and-mortar Whole Foods.¹⁶

A. Apple

Apple is first and foremost a consumer electronics company¹⁷ that builds software and hardware, particularly the iPhone. Like other smartphones, the iPhone has become “a portal for managing daily life.”¹⁸ Apple software and services are designed to put the consumer in control of their information (including health information) in a trusted, secure environment.¹⁹

¹³ Singer, *supra* note 9, at 2.

¹⁴ Jake Swearingen, *Why Is Amazon Building Brick-and-Mortar Bookstores?* N.Y. MAG.: INTELLIGENCER (June 1, 2017), <http://nymag.com/selectall/2017/06/why-is-amazon-building-bookstores.html>.

¹⁵ J.J. McCorvey, *The Race Has Just Begun*, FAST COMPANY, Sept. 2013, at 68 (discussing how AmazonFresh grocery products can be purchased online and delivered along with other goods from Amazon’s non-grocery product selection).

¹⁶ Nick Wingfield & Michael J. de la Merced, *Amazon to Buy Whole Foods for \$13.4 Billion*, N.Y. TIMES (June 16, 2017), <https://www.nytimes.com/2017/06/16/business/dealbook/amazon-whole-foods.html>.

¹⁷ Either Apple has morphed from a computer company into a consumer electronics company or computers have become consumer electronics.

¹⁸ *Surgical Intervention*, ECONOMIST, Feb. 3, 2018, at 59.

¹⁹ *Id.* at 60.

Although Apple is opening medical clinics for its employees,²⁰ its primary healthcare focus is on consumer-facing hardware and software that monitors health²¹ or empowers consumers to safely curate their own health information.²² In that latter context, David Blumenthal and Aneesh Chopra argue such an approach removes patient dependency “on the bureaucracies of big health systems or on understaffed physician offices to make their own data available for further care.”²³ With the data liberated and under patient control, “consumer-facing applications . . . have the potential to revolutionize patient-provider interactions and empower consumers in ways never before imagined in the history of medicine.”²⁴ The Apple strategy does not seem to compete with incumbent healthcare. It creates an additional level of data, derived directly from the patient via its own apps that are secure and patient-centric. Increasingly, however, Apple is facilitating the import of data created in traditional healthcare settings into its ecosystem.²⁵ Apple is also implementing actions based on the healthcare data it collects, for example, by providing health alerts derived from such data. Progressively, therefore, the data generated or imported by Apple’s customers will resemble or become intertwined with more traditional healthcare services (and, potentially, intertwined with traditional healthcare regulation).

²⁰ Christina Farr, *Apple Is Launching Medical Clinics to Deliver the 'World's Best Health Care Experience' to Its Employees*, CNBC (Feb. 27, 2018), <https://www.cnbc.com/2018/02/27/apple-launching-medical-clinics-for-employees.html>.

²¹ See, e.g., Alex Webb, *Apple Is Developing an EKG Heart Monitor for Its Smartwatch*, BLOOMBERG (Dec. 21, 2017, 12:00 PM), <https://www.bloomberg.com/news/articles/2017-12-21/apple-is-said-to-develop-ekg-heart-monitor-for-future-watch>.

²² See Press Release, Apple, *Apple Announces Effortless Solution Bringing Health Records to iPhone* (Jan. 24, 2018), <https://www.apple.com/newsroom/2018/01/apple-announces-effortless-solution-bringing-health-records-to-iphone/> (discussing an updated to Apple’s Health app which allows users to view their medical records on their iPhone); see also Apple, *Apple Opens Health Records API to Developers* (Jun. 4, 2018), <https://www.apple.com/newsroom/2018/06/apple-opens-health-records-api-to-developers/>.

²³ David Blumenthal & Aneesh Chopra, *Apple’s Pact with 13 Health Care Systems Might Actually Disrupt the Industry*, HARV. BUS. REV. (Mar. 23, 2018), <https://hbr.org/2018/03/apples-pact-with-13-health-care-systems-might-actually-disrupt-the-industry>.

²⁴ *Id.*

²⁵ Lucas Mearian, *Apple’s Health Record API Released to Third-Party Developers; Is it Safe?*, COMPUTERWORLD (June 7, 2018, 3:11 AM), <https://www.computerworld.com/article/3279746/apple-ios/apples-health-record-api-released-to-third-party-developers-is-it-safe.html> (discussing Apple’s API which allows users to transfer their electronic health records to iPhone and share between providers).

B. Alphabet

Alphabet takes an orthogonal approach, concentrating on patient and pre-patient data and using AI to predict, *inter alia*, risk-factors.²⁶ The company has invested heavily in numerous health technology companies.²⁷ Verily, Alphabet's primary healthcare subsidiary, is developing tools and devices that collect and analyze health data to improve interventions and care management, typically in partnership with existing stakeholders.²⁸ Recently Alphabet announced a re-organization and consolidation of its healthcare properties into a new Google Health unit.²⁹

DeepMind, Alphabet's UK-based AI subsidiary, has shown a particular interest in health data.³⁰ Indeed, DeepMind's close working relationship with Royal Free NHS Foundation Trust, in which the latter supplied DeepMind with the clinical records of 1.6 million patients, drew a stern rebuke from the UK Information Commissioner's office.³¹ Notwithstanding Alphabet's generalist and data-driven approach, it does have one subsidiary concentrating on direct care initiatives: Cityblock. This subsidiary creates community-based clinics ("Neighborhood Hubs") in underserved urban areas.³²

Looking at the future of healthcare through the lenses of these and other companies, we can imagine at one end of the spectrum vertically integrated legacy companies (incumbents) exemplified by the combination of Aetna (the third largest U.S. health insurer) and CVS (the largest U.S. pharmacy and pharmacy benefit manager).³³ At the other end of the spectrum, Apple is building relationships with

²⁶ *Surgical Intervention*, *supra* note 18.

²⁷ Jillian D'Onfro, *Alphabet's Bets on Health Tech Are Paying Off as Portfolio Companies Go Public*, CNBC (Mar. 30, 2018, 1:44 PM), <https://www.cnbc.com/2018/03/30/alphabet-gv-life-sciences-and-health-investments-going-public.html>.

²⁸ VERILY, <https://verily.com> (last visited Oct. 18, 2018).

²⁹ Christina Farr, *The New Google Health Unit Is Absorbing Health Business from DeepMind*, Alphabet's AI Research Group, CNBC (Nov. 13, 2018, 11:15 AM), <https://www.cnbc.com/2018/11/13/google-health-unit-absorbs-deepmind-health.html>.

³⁰ *About DeepMind Health*, DEEPMIND, <https://deepmind.com/applied/deepmind-health/about-deepmind-health/> (last visited Oct. 18, 2018).

³¹ *Royal Free - Google DeepMind Trial Failed to Comply with Data Protection Law*, ICO (Jul. 3, 2017), <https://ico.org.uk/about-the-ico/news-and-events/news-and-blogs/2017/07/royal-free-google-deepmind-trial-failed-to-comply-with-data-protection-law/>.

³² *Our Story*, CITYBLOCK, <https://www.cityblock.com/about> (last visited Oct. 18, 2018).

³³ Brian Fung, *CVS's \$69 Billion Merger with Aetna Is Approved in Deal that Could Transform Health-Care Industry*, WASH. POST (Oct. 10, 2018), <https://www.washingtonpost.com/>

health researchers and large providers but essentially focusing on consumer products and secure management of patient-controlled health information. In the middle, but closer to Apple, is Alphabet: data-focused but still a hybrid because of the deep relationships it is building with researchers and providers to gain access to their health data.

C. Amazon

As it did for Amazon Web Services (“AWS”), Amazon may well start Prime Health with the goal of being its “first and best customer.”³⁴ But, thereafter, it is much more likely it will look to scale and attract other employers and eventually even individuals. It has to do so in order to fulfill its prime directive, extracting profit from all transactions.

A common misperception is that the Prime Health partners have no ambition beyond leveraging their buying power to cut better deals with healthcare incumbents.³⁵ Indeed, it has been argued that of the big three, Apple and Alphabet will have a greater short-term impact than will Prime Health. Here, the argument is that the initial, internal roll-out of Prime Health will only cover ABJ’s approximately one million employees, whereas Apple and Alphabet may be quicker to make their health insights available to hundreds of millions of external customers.³⁶

Others will take that course. For example, Cisco Systems, Intel, and Walmart have all built direct relationships with providers.³⁷ In contrast, it is simply not Amazon’s way to take such a reactively pedestrian path.

The Amazon pathology around this idea of its own first and best customer is quite consistent. It launched a sophisticated and scalable data system to track its own customers and logistics (Amazon was the first and best customer of AWS) before

technology/2018/10/10/justice-department-approves-cvss-billion-merger-with-insurance-giant-aetna/? (discussing the CVS-Aetna merger).

³⁴ Ben Thompson, *The Amazon Tax*, STRATECHERY (Mar. 15, 2016), <https://stratechery.com/2016/the-amazon-tax/> (using the term “first and best customer” to describe the practice wherein Amazon built AWS for internal use first before making AWS available to customers externally).

³⁵ See, e.g., Robert Langreth & Zachary Tracer, *Buffett-Bezos Health Plan Will Hinge on Buying Power, Technology*, BLOOMBERG (Jan. 30, 2018, 10:39 AM), <https://www.bloomberg.com/news/articles/2018-01-30/surprise-bid-to-upend-health-care-rests-on-buying-power-tech>.

³⁶ *Surgical Intervention*, *supra* note 18.

³⁷ Caroline Humer, *Fed Up with Rising Costs, Big U.S. Firms Dig into Healthcare*, REUTERS (Jun. 11, 2018, 6:07 AM), <https://www.reuters.com/article/us-usa-healthcare-employers-insight/fed-up-with-rising-costs-big-u-s-firms-dig-into-healthcare-idUSKBN1J70ZZ>.

opening up AWS to outsiders and, not incidentally, many billions in annual revenue.³⁸ Similarly, Amazon is investing in aircraft and trucks to build its own delivery service infrastructure. Initially, Amazon will be its own first and best customer and no doubt find itself with leverage in negotiations with UPS and FedEx,³⁹ but inevitably thereafter, third parties will be able to ship via “Amazon Parcel” or however it will be branded. Finally, AmazonFresh lacked a first and best customer within the Amazon portfolio—the solution? Amazon purchased Whole Foods, “the first-and-best customer that will instantly bring its grocery efforts to scale.”⁴⁰ Regarding its healthcare ambitions, circumstantial evidence shows that Amazon is exploring aspects of traditional healthcare such as prescription drug distribution.⁴¹

One of the difficulties in discerning the properties of, much less answering structural or delivery questions about, Prime Health is that it is difficult to see where Amazon’s internal healthcare needs end and Prime Health’s ambitions begin. For example, Prime Health could be a relatively modest effort based on a very large, self-funded ABJ group health plan with “innovation” restricted to somewhat pedestrian (albeit worthy) build-outs of company-owned employee health clinics.⁴² That model is supported by some recent hiring by Amazon (rather than Prime Health). For example, Amazon hired a former U.S. FDA chief health informatics

³⁸ Jason Del Rey, *Amazon’s AWS and Advertising Businesses Are Fueling Its Retail Dominance*, RECODE (Apr. 26, 2018, 6:55 PM), <https://www.recode.net/2018/4/26/17286316/amazon-jeff-bezos-amzn-q1-earnings-revenue-stock-aws-advertising>; Ron Miller, *How AWS Came to Be*, TECHCRUNCH (July 2, 2016), <https://techcrunch.com/2016/07/02/andy-jassys-brief-history-of-the-genesis-of-aws/>.

³⁹ Laura Stevens, *Amazon to Launch Delivery Service That Would Vie with FedEx, UPS*, WALL ST. J. (Feb. 9, 2018), <https://www.wsj.com/articles/amazon-to-launch-delivery-service-that-would-vie-with-fedex-ups-1518175920>.

⁴⁰ Ben Thompson, *Amazon’s New Customer*, STRATECHERY (June 19, 2017), <https://stratechery.com/2017/amazons-new-customer/>.

⁴¹ See, e.g., Carolyn Y. Johnson, *What Amazon Could Do to the Business of Selling Prescription Drugs*, WASH. POST (May 17, 2017), <https://www.washingtonpost.com/news/wonk/wp/2017/05/17/what-amazon-could-do-to-the-business-of-selling-prescription-drugs/>; Robert Langreth & Spencer Soper, *This Is How Amazon Could Invade the Pharmacy*, BLOOMBERG (Nov. 7, 2017, 10:10 AM), <https://www.bloomberg.com/news/articles/2017-11-07/six-ways-amazon-could-upend-the-pharmacy-business>.

⁴² See Christina Farr, *Amazon Has Plans to Open Its Own Health Clinics for Seattle Employees*, CNBC (Aug. 9, 2018, 12:46 PM), <https://www.cnbc.com/2018/08/09/amazon-plans-primary-care-clinics-employees.html>; see also Christina Farr, *Amazon Just Hired a Top Seattle Doctor Who Ran a Network of Health Clinics*, CNBC (Jan. 19, 2018, 5:14 PM), <https://www.cnbc.com/2018/01/19/amazon-hired-seattles-martin-levine-from-iora-to-add-to-health-group.html>.

officer⁴³ and a well-known cardiologist.⁴⁴ At the moment, it is impossible for outsiders to see the vector between Amazon’s own healthcare ambitions and Prime Health (i.e. what it is building for its employees internally compared with what it is building for users externally). It is possible that Amazon itself does not yet know.

Neither an ambition to build Prime Health nor the supposition that it will likely adopt a hybrid construct completely answer questions such as what Prime Health will look like or how it will function. For example, will Amazon, in the vein of its Whole Foods acquisition, purchase brick-and-mortar providers such as hospitals?⁴⁵ Additionally, while some technological “disruptions” of healthcare (for example, Apple enabling individuals to curate their own health information) will add new layers to the existing healthcare industry without immediately threatening incumbents, Amazon initiatives are typically unfriendly to incumbents. Their entrance suggests there will be some net losers. The next two sections address these structural questions, first by keying in on some of the cultural and business practices that define Amazon and, second, by examining the various ways that Prime Health could be structured and how it could deliver access to care (or even provide actual care).

II

HOW THE AMAZON MODEL MAY FRAME PRIME HEALTH

The next two parts use a thought experiment to analyze Prime Health, which proceeds as follows. Part III highlights the foundational properties of Amazon that are likely to migrate to Prime Health. It relies on identifiable properties of the Amazon business model (“Amazon’s DNA”) such as data-leveraging and being customer-driven. Part IV expands that vision, imagining what Prime Health *could* or *should* achieve if not constrained by Amazon’s existing culture and business model.

⁴³ Christina Farr, *Amazon is Hiring a Former FDA Official to Work on Its Secretive Health Tech Business*, CNBC (Mar. 16, 2018, 5:14 PM), <https://www.cnbc.com/2018/03/16/amazon-hiring-taha-kass-hout-former-fda-cto.html>.

⁴⁴ Christina Farr, *Amazon Hires a Star Cardiologist to Help Its Push into Health*, CNBC, (Aug. 20, 2018, 2:10 PM), <https://www.cnbc.com/2018/08/20/amazon-hires-star-cardiologist-maulik-majmudar.html?>

⁴⁵ Nicolas P. Terry, *Prime Health: Should Amazon Purchase a Hospital Chain?*, MEDIUM (July 30, 2017), <https://medium.com/@nicolasterry/prime-health-should-amazon-purchase-a-hospital-chain-7a322d1ad0ec>.

Since the pioneering work of Kenneth Arrow, it has been well established that healthcare fails to obey basic market rules.⁴⁶ In part, this explains the political interest in more radical disruptions of healthcare, with internally-driven reforms or externally-fashioned, market-driven reforms deemed as unlikely.⁴⁷ U.S. businesses built around well-functioning markets who shop for healthcare or health insurance for their employees are likely confused or at least frustrated by an ecosystem strewn with path-dependent practices and misaligned incentives. Not surprisingly, therefore, mainstream businesses generally have not expanded into healthcare while technology-harnessing disruptive businesses have continued their relentless targeting of even the most unlikely brick-and-mortar incumbents.⁴⁸

However, Amazon, often to the befuddlement of financial analysts, is a very different type of company and somewhat counter intuitively may prove to be a formidable competitor in healthcare. For example, Amazon “in an accelerated and innovative way . . . continues to invest in areas of growth at the expense of profitability, something most other retailers (and other firms) can’t afford to do.”⁴⁹ And Amazon is also a patient company, “willing and able to build [Internet] businesses with the patience that will be necessary to wait for the old order to collapse.”⁵⁰ These characteristics support the imagining of Prime Health as a long game disruption of U.S. healthcare.

⁴⁶ Kenneth J. Arrow, *Uncertainty and the Welfare Economics of Medical Care*, 53 AM. ECON. REV. 941 (1963).

⁴⁷ See, e.g., Yoni Blumberg, *70% of Americans Now Support Medicare-For-All—Here's How Single-Payer Could Affect You*, CNBC (Aug. 28, 2018, 1:05 PM), <https://www.cnbc.com/2018/08/28/most-americans-now-support-medicare-for-all-and-free-college-tuition.html>.

⁴⁸ See, e.g., Carrie Hojnicky, *How Casper Disrupted the Mattress Industry*, ARCHITECTURAL DIG. (Mar. 21, 2017), <https://www.architecturaldigest.com/story/how-startup-casper-disrupted-the-mattress-industry>; Warren Shoulberg, *What's Next for Mattress Firm After Bankruptcy and Putting 700 Stores to Sleep?*, FORBES, (Oct. 5, 2018, 12:54 PM), <https://www.forbes.com/sites/warrenshoulberg/2018/10/05/whats-next-for-mattress-firm-after-bankruptcy-and-putting-700-stores-to-sleep/#69906b8e5328>.

⁴⁹ See Michael K. Spencer, *W*F is Amazon?*, MEDIUM (Nov. 1 2017), https://medium.com/@Michael_Spencer/wtf-is-amazon-future-of-tech-34802913dc9e; see also Shira Ovide, *How Amazon's Bottomless Appetite Became Corporate America's Nightmare*, BLOOMBERG (Mar. 14, 2018), <https://www.bloomberg.com/graphics/2018-amazon-industry-displacement/>.

⁵⁰ Ben Thompson, *Amazon Health*, STRATECHERY (Jan. 31, 2018), <https://stratechery.com/2018/amazon-health/>.

A. Data Driven

Data may or may not be the new oil⁵¹ or the new coal.⁵² However, it is clear that the promise of integrating data is a major driver of merger and acquisition activity. As Wendy Epstein noted in the context of the CVS-Aetna combination, “in a world where consumer costs have dominated the discussion, it is at least worth thinking more about the impact that the integration of payor and provider data might have.”⁵³ Further, according to Dan Mendelson, “[a] lot of the basic wiring of the health care system is now complete—a result of federal investment and lower technology prices. The need now is to harness the power of analytics to improve care. . . . [T]his drives mergers and acquisition.”⁵⁴ Data is also an important demand-side driver. Patients lacking knowledge and control is a major problem in our current healthcare system; empowering them with access to data may provide such knowledge and control, thereby increasing consumer demand for healthcare.⁵⁵ Prime Health’s recent hiring of COO Jack Stoddard, who has a strong track record in digital health, further suggests the extent to which Prime Health will be data-driven.⁵⁶

B. Combining the Digital with the Physical

The “big three” technology companies already possess almost unimaginable amounts of customer data, some of it health information and much of it medically-inflected data. They have also built some of the most sophisticated analytics and logistics platforms. Further, Amazon broke new ground by combining the digital and physical in a way never before seen.⁵⁷ As Michael J. Coren notes, “Amazon’s

⁵¹ *The World’s Most Valuable Resource Is No Longer Oil; Regulating the Data Economy*, ECONOMIST, May 6, 2017, at 9.

⁵² Alex Hern, *Why Data Is the New Coal*, GUARDIAN (Sept. 27, 2016, 6:26 AM), <https://www.theguardian.com/technology/2016/sep/27/data-efficiency-deep-learning>.

⁵³ Wendy N. Epstein, *The CVS/Aetna Deal: The Promise in Data Integration*, BILL OF HEALTH (Dec. 13, 2017), <http://blogs.harvard.edu/billofhealth/2017/12/13/the-cvsaetna-deal-the-promise-in-data-integration/>.

⁵⁴ Robert J. Samuelson, Opinion, *Is This the Future of Health Care?*, WASH. POST (Nov. 1, 2017), https://www.washingtonpost.com/opinions/is-this-the-future-of-health-care/2017/11/01/45dcc4dc-bf1b-11e7-8444-a0d4f04b89eb_story.html?hpid=hp_hp-top-table-main-healthcare%3Aopinion%3Ahomepage%2Fstory&hpid=hp_hp-top-table-main-healthcare%3Aopinion%3Ahomepage%2Fstory.

⁵⁵ *Doctor You*, *supra* note 4.

⁵⁶ Christina Farr, *The Amazon-Berkshire-JPM Health Venture Led by Atul Gawande Has a COO: Jack Stoddard*, CNBC (Sept. 4, 2018, 2:28 PM), <https://www.cnbc.com/2018/09/04/amazon-berkshire-jpm-health-venture-hires-jack-stoddard-coo.html>.

⁵⁷ Michael J. Coren, *There’s Precedent for Amazon Competing with So Many Companies. It Doesn’t End Well.*, QUARTZ (Oct. 28, 2017), <https://qz.com/1107328/theres-precedent-for-amazon-competing-with-so-many-companies-it-doesnt-end-well/>.

unprecedented logistics and delivery infrastructure, paired with access to personal data about Americans' purchasing habits, means it is unique in the history of global commerce."⁵⁸

It has been more than a decade since Steven Spear argued that healthcare should adopt the technologies and practices of successful businesses and "tightly couple the process of doing work with the process of learning to do it better as it's being done."⁵⁹ Yet, how many healthcare providers have heeded or implemented that message? In contrast, any Prime Health service providers would become customers of key strategies and technologies, rapidly improving areas where healthcare institutions suffer from under-investment or lack of scale, such as procurement, secure IT, and data analytics.

Amazon already possesses many healthcare properties, of which Prime Health could potentially take advantage.⁶⁰ For example, Amazon already sells medical supplies and equipment,⁶¹ offers one-hour delivery on some OTC drugs in Seattle,⁶² sells prescription drugs in Japan,⁶³ has reportedly been acquiring expertise in selling prescription drugs in the U.S.,⁶⁴ and recently acquired PillPack, an online pharmacy specializing in pre-sorted medication doses.⁶⁵ Further, in Whole Foods, Amazon has a collection of strategically placed locations that are already being fitted with pickup and return lockers for Amazon customers. Without a doubt, these could be expanded to include brick-and-mortar pharmacies or clinics. The company even holds a patent

⁵⁸ *Id.*

⁵⁹ Steven J. Spear, *Fixing Healthcare from the Inside, Today*, HARV. BUS. REV., Sept. 2005, at 1.

⁶⁰ Terry, *supra* note 45.

⁶¹ *Department of Medical Supplies & Equipment*, AMAZON, <https://www.amazon.com/Medical-Supplies-Equipment-Health-Care/b?ie=UTF8&node=3775161> (last visited Nov. 3, 2018).

⁶² *Introducing Prime Now Free 2-Hour Delivery*, BARTELL DRUGS, <https://www.bartelldrugs.com/services/primenow/> (last visited Nov. 3, 2018) (offering non-prescription drugs through Prime Now).

⁶³ Shusuke Murai, *Amazon Launches Same-Day Delivery Service for Food and Medicine*, JAPAN TIMES (Apr. 19, 2017), <https://www.japantimes.co.jp/news/2017/04/19/business/amazon-launches-same-day-delivery-service-for-food-and-medicine/#.XCaNGVxKg2w>.

⁶⁴ See Christina Farr, *Amazon is Hiring People to Break into the Multibillion-Dollar Pharmacy Market*, CNBC (May 16, 2017, 8:23 PM), <https://www.cnbc.com/2017/05/16/amazon-selling-drugs-pharmaceuticals.html> (discussing the variety of actions Amazon has taken to develop pharmaceutical industry expertise).

⁶⁵ Press Release, Amazon, Amazon to Acquire PillPack (Jun. 28, 2018), <https://www.businesswire.com/news/home/20180628005614/en/Amazon-Acquire-PillPack>.

for “anticipatory package shipping,” meaning they can ship goods to consumers before such goods are ordered, potentially reducing the costs and delays associated with the online market.⁶⁶ If Amazon fully deploys to Prime Health its properties in the healthcare space, Prime Health could fundamentally alter the industry.

C. Customer-Facing

Just as it is unimaginable that Prime Health would transmit data using fax machines, “the cockroach of American medicine,”⁶⁷ it is also hard to believe it would tolerate brick-and-mortar anachronisms. For example, Prime Health surely would have no tolerance for waiting rooms that “put [] a high cost on a medical provider’s time while valuing the patient’s time at essentially zero.”⁶⁸

Amazon continually works on the customer experience.⁶⁹ As an organization, it deploys considerable resources to discover and correct barriers to growth (or other “invisible asymptotes”⁷⁰), such as consumer dislikes. It also has a culture of high standards and continual improvement. According to Amazon CEO Jeff Bezos:

One thing I love about customers is that they are divinely discontent. Their expectations are never static—they go up. It’s human nature. . . . People have a voracious appetite for a better way, and yesterday’s ‘wow’ quickly becomes today’s ‘ordinary.’ . . . I sense that the same customer empowerment phenomenon is happening broadly across everything we do at Amazon and most other industries as well.

⁶⁶ See Coren, *supra* note 57; see also Method and Sys. for Anticipatory Package Shipping, U.S. Patent No. 8,615,473 (filed Aug. 24, 2012).

⁶⁷ Sarah Kliff, *The Fax of Life: Why American Medicine Still Runs on Fax Machines*, VOX (Jan. 12, 2018, 3:53 PM), <https://www.vox.com/platform/amp/health-care/2017/10/30/16228054/american-medical-system-fax-machines-why>.

⁶⁸ A. Gary Shilling, *Health Care’s Waiting Room Problem*, FORBES (Apr. 20, 2016), <https://www.forbes.com/sites/investor/2016/04/20/health-cares-waiting-room-problem/#6d4e5b9f514b>.

⁶⁹ See, e.g., Eric Feinberg, *How Amazon Is Investing in Customer Experience by Reimagining Retail Delivery*, FORBES (Jan. 4, 2018, 9:00 AM), <https://www.forbes.com/sites/forbescommunicationscouncil/2018/01/04/how-amazon-is-investing-in-customer-experience-by-reimagining-retail-delivery/#1fb846412c2e>.

⁷⁰ See Eugene Wei, *Invisible Asymptotes*, REMAINS OF THE DAY (May 22, 2018), <http://www.eugenewei.com/blog/2018/5/21/invisible-asymptotes> (discussing how Amazon’s investment in customer-focused research uncovered consumer dislike for paying shipping fees; by “eliminating” shipping fees with Amazon Prime, the company drastically raised their growth asymptote).

You cannot rest on your laurels in this world. Customers won't have it.⁷¹

In contrast, healthcare stakeholders continue to disagree over the importance of consumer-patient satisfaction.⁷²

Amazon also has some intriguing customer-facing assets that have been built on top of and cemented the Prime membership lock-in. Echo devices, which allow access to Prime products, are now installed in millions of homes. It should be relatively simple to add new "Alexa skills" that respond to health inquiries and medical emergencies.⁷³ Also, because Echo-Alexa is a platform, its voice commands are now tightly integrated with myriad home automation products. For example, imagine if Prime Health were to build a team of first responders. When Prime Health first responders arrive at a Prime customer's home, they could request that its front door be remotely unlocked and house lights turned on. To many, this is a dystopian vision, but Amazon has convinced its most loyal Prime customers that it deserves their trust either because of an instrumental trade-off between privacy and convenience or the dubious proposition that Amazon does not sell data to third parties and merely exploits data for its own purposes. Amazon also sells the Echo Look,⁷⁴ a fashion-oriented body camera, and the Echo Show,⁷⁵ a video communication device. Little re-tooling should be required to make these the basis

⁷¹ Letter from Jeff Bezos, Chief Exec. Officer, Amazon.com, Inc., to Amazon's Shareholders (Apr. 18, 2018) (on file with the SEC), *available at* <https://www.sec.gov/Archives/edgar/data/1018724/000119312518121161/d456916dex991.htm>.

⁷² See Paul Rosen, *The Patient as Consumer and the Measurement of Bedside Manner*, NEJM CATALYST (Mar. 20, 2017), <https://catalyst.nejm.org/patient-satisfaction-consumer-measurement-bedside-manner/> (discussing research which suggests that physicians, at least compared to service providers in other industries, place relatively less weight on the importance of customer satisfaction and experience); see also Augusta Meill & Gianna Ericson, *The Trouble with Treating Patients as Consumers*, HARV. BUS. REV. (Jan. 9, 2012), <https://hbr.org/2012/01/the-trouble-with-treating-pati>.

⁷³ See generally *Alexa Skills*, AMAZON, <https://www.amazon.com/b?node=13727921011> (last visited Oct. 31, 2018).

⁷⁴ *Echo Look*, AMAZON, https://www.amazon.com/dp/B0186JAEWK/ref=fs_ods_hx (last visited Oct. 31, 2018).

⁷⁵ *Echo Show*, AMAZON, https://www.amazon.com/dp/B01J24C0TI/ref=fs_ods_kt (last visited Oct. 31, 2018).

for an effective telemedicine platform. Recently, Amazon has even announced that its Alexa AI engine will be acquiring some basic emotional awareness.⁷⁶

D. Reading the Gawande Tea Leaves

Notwithstanding early reports that ABJ was experiencing difficulty in finding its first CEO,⁷⁷ in June 2018, ABJ announced that Dr. Atul Gawande, the well-known surgeon, writer, and academician, will lead the new company.⁷⁸

There are several reformist themes readily discernible from Gawande’s books, popular press, and peer-reviewed literature. His best known writing on the healthcare system appeared in three articles in the *New Yorker* from 2010-12: *The Cost Conundrum*,⁷⁹ *Cowboys and Pit Crews*,⁸⁰ and *Big Med* (aka the Cheesecake Factory).⁸¹ Gawande’s themes are relatively consistent: over-utilization (particularly of surgical procedures and procedures with debatable cost-effectiveness), the need for reimbursement to be based on quality not quantity, inadequate attention paid to the actual needs and satisfaction of patients, lack of care coordination needing to be met with teamwork, increased standardization and checklists, and a recognition of “the reality that medicine’s complexity has exceeded our individual capabilities as doctors.”⁸² In medical literature, he is probably best known for his (and his research center, Ariadne Lab’s) work in designing the World Health Organization surgical

⁷⁶ Tom Simonite, *Amazon Wants Alexa to Hear Your Whispers and Frustration*, WIRED (Sept. 20, 2018), <https://www.wired.com/story/amazon-alexa-upgrades-whisper-alexa-guard/> (“[Amazon] is experimenting with giving Alexa a rudimentary form of emotional awareness, enabling it to listen for the sound of frustration in a person’s voice.”).

⁷⁷ Christina Farr, *The Bezos-Buffett-Dimon Joint Venture to Save Health Care Is Struggling to Find a CEO*, CNBC (May 16, 2018), <https://www.cnbc.com/2018/05/16/amazon-berkshire-jmp-health-group-struggling-to-find-ceo.html?>.

⁷⁸ Press Release, Amazon, Berkshire Hathaway & JPMorgan Chase & Co., Amazon, Berkshire Hathaway and JPMorgan Chase Appoint Dr. Atul Gawande as Chief Executive Officer of Their Newly-Formed Company to Address U.S. Employee Healthcare (June 20, 2018), <https://www.businesswire.com/news/home/20180620005744/en/Amazon-Berkshire-Hathaway-JPMorgan-Chase-Appoint-Dr..>

⁷⁹ Atul Gawande, *The Cost Conundrum*, NEW YORKER, June 1, 2009.

⁸⁰ Atul Gawande, *Cowboys and Pit Crews*, NEW YORKER (May 26, 2011), <https://www.newyorker.com/news/news-desk/cowboys-and-pit-crews>.

⁸¹ Atul Gawande, *What Big Medicine Can Learn from the Cheesecake Factory*, NEW YORKER (Aug. 13, 2012), <https://www.newyorker.com/magazine/2012/08/13/big-med>.

⁸² Gawande, *supra* note 80.

checklist⁸³ and its validation studies both globally⁸⁴ and in an important South Carolina study.⁸⁵ Just after his announcement as ABJ's CEO, while speaking at the annual meeting of America's Health Insurance Plans, Gawande opined that surgery is the single largest healthcare cost.⁸⁶

Gawande seems to hold relatively mainstream views touched on by other centrist reformers,⁸⁷ such as advocating for reasonable cost containment strategies. (To a certain degree, some fully vertically-integrated providers already implement such strategies.⁸⁸) Gawande was a defender of the ACA's incremental approach to cost containment,⁸⁹ earning a rebuke from Alain Enthoven for defending Congress' "unmistakable signal that it is unable or unwilling to control health expenditures and the fiscal deficit."⁹⁰

Other than suggesting a centrist approach and a sensitivity towards health equity, we know little about how Gawande will approach his leadership role at Prime Health. That said, a commitment to patient safety, patient satisfaction, and concerns about tertiary healthcare costs suggest Gawande is a leader well-versed in the current challenges facing healthcare in the U.S. and someone compatible with Amazon's DNA.

⁸³ See *Surgery: WHO Safe Surgery Checklist*, ARIANDE LABS, <https://www.ariadnelabs.org/areas-of-work/safe-surgery-checklist/> (last visited Oct. 31, 2018).

⁸⁴ Alex B. Haynes et al., *A Surgical Safety Checklist to Reduce Morbidity and Mortality in a Global Population*, 360 NEW ENG. J. MED. 491, 491 (2009).

⁸⁵ See Alex B. Haynes et al., *Mortality Trends After a Voluntary Checklist-Based Surgical Safety Collaborative*, 266 ANNALS SURGERY 923, 923 (2017); see also George Molina et al., *Perception of Safety of Surgical Practice Among Operating Room Personnel from Survey Data Is Associated with All-Cause 30-day Postoperative Death Rate in South Carolina*, 266 ANNALS SURGERY 658, 658 (2017).

⁸⁶ Deena Beasley, *Surgery, Not Pharma, Is Biggest Healthcare Cost Worry: Gawande*, INS. J. (June 22, 2018), <https://www.insurancejournal.com/news/national/2018/06/22/493065.htm>.

⁸⁷ See, e.g., Donald Berwick et al., *The Triple Aim: Care, Health, and Cost*, 27 HEALTH AFF. 759, 759-69 (2008); Donald Berwick et al., *No Toyota yet, but a Start*, 35 MODERN HEALTHCARE 18, 18-19 (2005).

⁸⁸ See, e.g., JESSE PINES ET AL., BROOKINGS INST., KAISER PERMANENTE-CALIFORNIA: A MODEL FOR INTEGRATED CARE FOR THE ILL AND INJURED (2015), https://www.brookings.edu/wp-content/uploads/2016/07/KaiserFormatted_150504RH-with-image.pdf.

⁸⁹ Atul Gawande, *Testing, Testing*, NEW YORKER, Dec. 14, 2009, at 34.

⁹⁰ Alain C. Enthoven, *Would Reform Bills Control Costs? A Response to Atul Gawande*, HEALTH AFF. (Dec. 22, 2009), <https://www.healthaffairs.org/doi/10.1377/hblog20091222.003279/full/>.

III WHAT PRIME HEALTH *COULD* OR *SHOULD* BE

This section builds on the foundational properties described above. It is more speculative, relying on the work of business analysts, previous disruptions by technology companies, and the potential for disintermediation of some healthcare incumbents. Unlike Part III, this Part IV imagines what Prime Health could look like if not constrained by Amazon’s existing culture and business model. Questions about what Prime Health *could* be are interwoven with what it *should* be. The conceit of this article is that Prime Health could be built off the disintermediation of some stakeholders and the commoditization of the products and services of others.⁹¹ Therein also lies the normative point; what Prime Health *should* be is an attempt to demonstrate vitality and innovation in the employer role in providing access to healthcare services.

These questions include the likely customers and where the enterprise will identify structural and delivery deficiencies that can be improved upon. There is also a fundamental question of whether Prime Health will be based upon some existing construct or will be built from whole cloth.⁹² According to the *Economist*, “[t]here are two broad routes into health care. The first is doing business with hospitals and health-care companies in the existing system A second route is for tech firms to use their various platforms to create entirely new channels through which medical care can be delivered to patients.”⁹³ These are accurate descriptions of the disruption-lite we are seeing from Alphabet and Apple, with the former tending to build data relationships with existing providers on top of which it can build analytics products and the latter tending to build new channels and tools atop of existing clinical and research relationships.

A. *Strategic Options*

There are some imperfect parallels to an expansive sketch of Prime Health. For example, the idea of commoditizing healthcare products and services is somewhat reflected in the announced strategy of large healthcare networks to create

⁹¹ Thompson, *supra* note 50.

⁹² See, e.g., Drew Altman, *Don't Overhype the New Health Care Venture*, AXIOS (Feb. 8, 2018), <https://www.axios.com/dont-overhype-new-health-care-venture-88b62e53-f56b-4a5e-8ba9-c96266902747.html>.

⁹³ *Surgical Intervention*, *supra* note 18.

their own drug company to manufacture off-patent drugs.⁹⁴ Essentially, the providers intend to commoditize off-patent drugs to counter the practice of pharmaceutical companies continuing to sell such drugs at high prices because of “a reduction in the number of suppliers, consolidation of production volumes, and a concentration of market pricing power.”⁹⁵

Vertically-integrated providers may provide another preview (albeit imperfect) of what Prime Health could theoretically look like. Some non-governmental, vertically-integrated providers, such as affordable care organizations (“ACOs”), report positive results, although generally with regard to quality rather than reduced costs.⁹⁶ Overall, evidence about the performance of fully vertically-integrated providers is mixed.⁹⁷ An additional parallel can be drawn to the Veterans Health Administration (“VA”), a fully vertically-integrated provider. The VA, for obvious reasons, “owns” its consumers and it purchases healthcare goods and services (their clinical staff are employees) without using intermediaries. The VA uses comparative effectiveness research to determine clinical practices and which drugs to include in its formulary.⁹⁸ It is certainly within the realm of probability that Prime Health would adopt a limited formulary like the VA does⁹⁹ or like Massachusetts has proposed for its Medicaid program.¹⁰⁰

⁹⁴ Reed Abelson & Katie Thomas, *Fed Up With Drug Companies, Hospitals Decide to Start Their Own*, N.Y. TIMES, Jan. 18, 2018, at B1.

⁹⁵ *Leading U.S. Health Systems Announce Plans to Develop a Not-for-profit Generic Drug Company*, INTERMOUNTAIN HEALTHCARE (Jan. 18, 2018), <https://intermountainhealthcare.org/news/2018/01/leading-us-health-systems-announce-plans-to-develop-a-not-for-profit-generic-drug-company/>.

⁹⁶ See, e.g., Wenke Hwang et al., *Effects of Integrated Delivery System on Cost and Quality*, 19 AM. J. MANAGED CARE e175, e178-82 (2013).

⁹⁷ See Austin Frakt, *The Performance of Integrated Delivery Systems*, ACADEMYHEALTH (July 20, 2016), <https://www.academyhealth.org/node/2151> (discussing several studies showing that integrated health service networks often fail to reduce costs while only occasionally improving quality of care).

⁹⁸ See David Atkins et al., *The Veterans Affairs Experience: Comparative Effectiveness Research in A Large Health System*, 29 HEALTH AFF. 1906, 1906-07 (2010); see also GRETCHEN A. JACOBSON ET AL., CONG. RESEARCH SERV., RL33802, PHARMACEUTICAL COSTS: A COMPARISON OF DEPARTMENT OF VETERANS AFFAIRS (VA), MEDICAID, AND MEDICARE POLICIES 8-14 (2007).

⁹⁹ U.S. DEPT. VETERANS AFFAIRS, VHA FORMULARY MANAGEMENT PROCESS (2009), <https://www.pbm.va.gov/PBM/directive/vhadirective.pdf>.

¹⁰⁰ See Katie Gudiksen, *State Medicaid Programs Are a Tool to Address Rising Drug Costs*, SOURCE ON HEALTHCARE PRICE & COMPETITION: SOURCE BLOG (May 8, 2018),

B. The Customers

The ABJ parent companies have a national presence and employ approximately one million people in worldwide.¹⁰¹ A fundamental question is whether ABJ will build Prime Health exclusively for its own employees or build it out as a generally available product. If the endeavor hues to Amazon’s traditional practices, Prime Health will begin with ABJ employees (its first and best customers¹⁰²) and then extend outwards, maybe to other large employers and ultimately even to individuals.

In June 2018, at an event planned before his appointment at ABJ, Atul Gawande gave a lengthy interview at the Aspen Ideas Festival.¹⁰³ He spoke about the demographics of ABJ employees, beginning with Amazon’s fulfillment center workers:

Most of [Amazon’s fulfillment center workers], people who probably are there only about a year or so. These are people who have very unstable health care, been in and out Then you get to JPMorgan Chase, where their largest employment group are bank tellers. So you’re talking about people at the 30th, 40th, 50th percentile

<http://sourceonhealthcare.org/state-medicaid-programs-are-a-tool-to-address-rising-drug-costs/>. In June 2018, CMS refused Massachusetts’ Medicaid waiver request. *See* Letter from Angela D. Garner, Dir., Div. Sys. Reform Demonstrations, Ctrs. Medicare & Medicaid Servs., to Daniel Tsai, Assistant Sec’y & Dir. MassHealth, Mass. Exec. Office Health & Human Servs. (Oct. 23, 2018) (on file with Ctrs. Medicare & Medicaid Servs.), *available at* <https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/ma/ma-masshealth-ca.pdf>.

¹⁰¹ In 2017, Amazon employed 566,000 people worldwide. *See* Kurt Schlosser, *Amazon Now Employs 566,000 People Worldwide—a 66 Percent Jump from a Year Ago*, GEEKWIRE (Feb. 1, 2018), <https://www.geekwire.com/2018/amazon-now-employs-566000-people-worldwide-66-percent-jump-year-ago/>. As of June 2018, JPMorgan Chase & Co. employed 252,539 people. *See* Company Profile for JPMorgan Chase & Co., FORBES, <https://www.forbes.com/companies/jpmorgan-chase/#6a4f553f9fa9> (last updated June 6, 2018). As of November 2017, Berkshire Hathaway employed approximately 377,291 people. *See* Company Profile for Berkshire Hathaway, Inc., BLOOMBERG, <https://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapId=255251> (last updated Nov. 20, 2018).

¹⁰² *See supra* Part I.C.

¹⁰³ A Conversation with Surgeon, Author, and Researcher Atul Gawande, Aspen Institute (June 23, 2018) [hereinafter Conversation with Atul Gawande], <https://www.aspenideas.org/sites/default/files/transcripts/A%20Conversation%20with%20Surgeon%2C%20Author%2C%20and%20Researcher%20Atul%20Gawande.pdf>.

of income. They fall between the people who get Medicaid and the people who get Medicare.¹⁰⁴

Gawande was also sensitive to health inequities present in our current system, noting how middle income individuals pay “taxes for people to get Medicaid. That’s better coverage than they could ever get. No co-pays, no premiums, no deductibles.”¹⁰⁵ Finally, he reflected on the growing problem of underinsurance, stating that “typically, in private sector employment, you’re getting up to \$1,000, \$2,000 deductibles these days.”¹⁰⁶

It is certainly tempting to believe that a company led by Dr. Gawande—someone with a sophisticated understanding of the societal costs of access stratification and the detrimental impact of health insurance policies’ declining actuarial values—has ambitions beyond its own employees. If Prime Health were to expand beyond its own employees, it would likely be facilitated by Amazon’s existing “ownership” of more than 100 million “Prime” members.¹⁰⁷ Among those are persons with lower incomes who are subsidized by Amazon,¹⁰⁸ a perhaps tenuous link to the Affordable Care Act (ACA) model of making individual insurance affordable on the exchanges.¹⁰⁹

C. Friction and Intermediaries

U.S. healthcare has become a zero-sum game, shifting costs rather than creating new value.¹¹⁰ This does not have to be the case. Healthcare incumbents could expand into new businesses that are not directly related to clinical care, such as fitness and healthcare management.¹¹¹ To an extent, this is the market that Apple is beginning to dominate, at least for more affluent consumers. Such consumers spend additional, discretionary “healthcare” dollars to have their health information

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

¹⁰⁶ *Id.*

¹⁰⁷ Bezos, *supra* note 71.

¹⁰⁸ Nick Wingfield, *Pitching Deal, Amazon Bids for Shoppers on a Budget*, N.Y. TIMES, Mar. 8, 2018, at B2 (discussing discounted Amazon Prime membership for low-income Americans).

¹⁰⁹ 26 U.S.C. § 36B (2012) (establishing tax credits designed to help low-income individuals and families afford health insurance purchased through the Health Insurance Marketplace).

¹¹⁰ See, e.g., Michael E. Porter & Elizabeth Teisberg, *Redefining Competition in Health Care*, HARV. BUS. REV., June 2004, at 66.

¹¹¹ Dave Chase, *Overcoming Healthcare Organizations' Dangerous Zero Sum Thinking*, FORBES (July 12, 2015, 4:45 PM), <https://www.forbes.com/sites/davechase/2015/07/12/overcoming-healthcare-organizations-dangerous-zero-sum-thinking/#7f22aef16fa4>.

collected by an Apple Watch and securely stored on an iPhone. In this scenario, Apple is unlikely to pull revenue away from traditional healthcare businesses, although it may disrupt the watch and direct-to-consumer (“DTC”) medical device markets.

However, Prime Health is likely to play out in a zero-sum environment. If Prime Health is going to succeed, some other healthcare businesses are going to suffer or fail, just as booksellers, network television, department stores, and shopping malls have failed over the last twenty years because of competition from Amazon.¹¹²

The U.S. healthcare system has many idiosyncratic properties, most of which either increase cost or make it harder to decrease costs. Many of these properties can be attributed to accidental intermediaries or rent-seekers who arguably add little value to the supply chain that connects patients to healthcare services and products. In contrast, technology companies thrive on eliminating friction from transactions and reducing barriers between the consumer and the goods or services they want.¹¹³

Employers fall into the “accidental intermediary” category. One of healthcare’s original sins was the placement of employers in the middle of healthcare markets, a mistake made soon after the Second World War ended. U.S. healthcare has been path dependent ever since. After all, how many employees want their employers involved in their wellness or healthcare? Why, pre-ACA, should an employer’s business decision about the structuring of a health insurance benefit (self funded vs. fully funded) be determinative of whether state or federal law applies? Even when employers are not involved, their ghosts interfere. For example, the historical tying of health insurance to employment is in part responsible for the recent movement to making work a requirement for Medicaid.¹¹⁴

These negative externalities have been offset somewhat by the preeminence of group health insurance in reach, cost, and coverage due to the strong bargaining position of employers. As the percentage of Americans covered by employer health

¹¹² See, e.g., Lydia DePillis, *It’s Amazon’s World. We Just Live in It.*, CNN (Oct 4, 2018), <https://www.cnn.com/2018/10/03/tech/amazon-effect-us-economy/index.html>.

¹¹³ David Pogue, *Technology’s Friction Problem*, 306 SCI. AM. 28, 28 (2012).

¹¹⁴ See generally MaryBeth Musumeci et al., *Medicaid and Work Requirements: New Guidance, State Waiver Details and Key Issues*, HENRY J. KAISER FAMILY FOUND. (Jan. 16, 2018), <https://www.kff.org/medicaid/issue-brief/medicaid-and-work-requirements-new-guidance-state-waiver-details-and-key-issues/>.

insurance continues to gradually decline,¹¹⁵ the premiums paid by employees continue to rise.¹¹⁶ Moreover, copays and other out-of-pocket (“OOP”) cost-shifting mechanisms reduce actuarial value, creating a cohort of underinsured employees.¹¹⁷ The continuing role of employers seems less of a positive. Indeed, the fact that employers can deduct the cost of employer-sponsored health insurance (part of the “accident” in employer involvement in healthcare) arguably encourages overspending on healthcare¹¹⁸ and led to the ACA’s high-cost plan tax (the so-called “Cadillac Tax”).¹¹⁹ Whether the high-cost plan tax is progressive or regressive is still under debate.¹²⁰ Politically unpopular, the tax has been repeatedly delayed¹²¹ and may never be applied.

Notwithstanding the federal government’s promotion of health information technologies¹²² or the promise of Apple and Google’s forays into health-related gadgets and data analytics respectively, healthcare has proven difficult to disrupt.¹²³ According to disruption guru Clay Christensen and his colleagues, “[t]hird-party reimbursement systems sap motivation for innovation—particularly disruptive

¹¹⁵ ELISE GOULD, ECON. POL’Y INST., A DECADE OF DECLINES IN EMPLOYER-SPONSORED HEALTH INSURANCE COVERAGE 2 (2012), <https://www.epi.org/files/2012/bp337.pdf>.

¹¹⁶ Zachary Tracer, *Rising Health-Insurance Costs Are Eating Into Employees' Paycheck Gains*, BLOOMBERG (Sept. 19, 2017, 12:30 PM), <https://www.bloomberg.com/news/articles/2017-09-19/rising-health-insurance-costs-blunt-employees-paycheck-gains>.

¹¹⁷ SARAH R. COLLINS ET AL., COMMONWEALTH FUND, HOW WELL DOES INSURANCE COVERAGE PROTECT CONSUMERS FROM HEALTH CARE COSTS? 4-6 (2017), https://www.commonwealthfund.org/sites/default/files/documents/___media_files_publications_issue_brief_2017_oct_collins_underinsured_biennial_ib.pdf.

¹¹⁸ William H. Frist, *Obamacare's 'Cadillac Tax' Could Help Reduce the Cost Of Health Care*, FORBES (Feb. 26, 2014, 7:37 AM), <https://www.forbes.com/sites/theapothecary/2014/02/26/obamacares-cadillac-tax-could-help-reduce-the-cost-of-health-care/#4b3ed54c3989>.

¹¹⁹ *Id.*; 26 U.S.C. § 4980I (2012).

¹²⁰ Sherry Glied & Adam Striar, *Looking Under the Hood of the Cadillac Tax*, 15 COMMONWEALTH FUND 1, 4-6 (2016).

¹²¹ *See, e.g.*, Bruce Japsen, *Big Employers Win Delay for Obamacare's Cadillac Tax Once Again*, FORBES (Jan. 23, 2018, 4:30 PM), <https://www.forbes.com/sites/brucejapsen/2018/01/23/big-lobbies-and-employers-once-again-win-delay-for-obamacares-cadillac-tax/#1afdfd513ed4>.

¹²² *See, e.g.*, Nicolas P. Terry, *Pit Crews with Computers: Can Health Information Technology Fix Fragmented Care?*, 14 HOUS. J. HEALTH L. & POL’Y 129, 139-40, 162–64 (2014).

¹²³ *See generally* Terry, *supra* note 8, at 754, 756.

innovation—out of the system.”¹²⁴ It is therefore possible that the predicate for Prime Health disruption is to remove third-party reimbursement from the picture.

Collectively, health insurers have reported annual revenues of more than three-quarters of a trillion dollars since 2013¹²⁵ and continue to report record profits.¹²⁶ Intuitively, they should function to reduce costs. However, Elisabeth Rosenthal notes that health insurers have very little incentive to negotiate better prices with suppliers of healthcare services and products.¹²⁷ What, then, is their value as intermediaries or infomediaries?

Developments in the 1990s hinted at a positive answer. For a few years, managed care reversed the trend of healthcare inflation as consumers moved to health maintenance organizations (“HMOs”).¹²⁸ However, backlash from consumers and physicians soon put a stop to this reversal,¹²⁹ as healthcare continued to devour more and more of the economy, except during a short blip during the Great Recession.¹³⁰ A general summary of the failure is this: managed care attacked

¹²⁴ CLAYTON M. CHRISTENSEN ET AL., *SEEING WHAT’S NEXT: USING THE THEORIES OF INNOVATION TO PREDICT INDUSTRY CHANGE* 197 (2004).

¹²⁵ JACK CURRAN, IBISWORLD, *HEALTH & MEDICAL INSURANCE IN THE US* 38 (2018).

¹²⁶ Bertha Coombs, *As Obamacare Twists in Political Winds, Top Insurers Made \$6 Billion (Not That There Is Anything Wrong with That)*, CNBC (Aug. 5, 2017, 9:39 AM), <https://www.cnbc.com/2017/08/05/top-health-insurers-profit-surge-29-percent-to-6-billion-dollars.html>.

¹²⁷ Elisabeth Rosenthal, *An American Sickness: How Healthcare Became Big Business and How You Can Take It Back* 20-21 (2017).

¹²⁸ Alain C. Enthoven & Sara J. Singer, *The Managed Care Backlash and the Task Force in California*, 17 HEALTH AFF. 95, 96-97 (1998).

¹²⁹ See Robert J. Blendon et al., *Understanding the Managed Care Backlash*, 17 Health Aff. 80, 83, 90 (1998); see also *Managed Care: What Went Wrong? Can It Be Fixed?*, STAN. GRADUATE SCH. BUS. (Nov. 1, 1999), <https://www.gsb.stanford.edu/insights/managed-care-what-went-wrong-can-it-be-fixed>.

¹³⁰ Amitabh Chandra et al., *Is This Time Different? The Slowdown in Health Care Spending*, Brookings Papers on Econ. Activity, Fall 2013, at 272-74.

volume despite the fact that the real issue, of course, was (and remains) price,¹³¹ including drug prices,¹³² hospital charges,¹³³ and physician salaries.¹³⁴

Historian Christy Ford Chapin argues that “[t]he problem with American health care is not the care. It’s the insurance.”¹³⁵ Health insurers’ failure to control prices (for which they are not necessarily responsible) explains two provisions in the ACA: (1) the Medical-Loss Ratio (“MLR”)¹³⁶ and (2) the Independent Payment Advisory Board (“IPAB”).¹³⁷ Further, the *Washington Post* Editorial Board noted, in reference to the IPAB, that “[e]very bit of waste is some companies’ profit, and the industry wasn’t going to let it go without a fight—though of course it pretended to be fighting on behalf of patients.”¹³⁸ This sentiment can also be applied to the MLR. The MLR was designed to force insurers to spend a greater percentage of premium income on healthcare rather than administrative costs or executive salaries.¹³⁹ Few ACA provisions have had as much vitriol spilled on them as the IPAB. IPAB was a potential check on Medicare overspending that, if successful, would likely have influenced private insurance spending. It was despised by healthcare companies¹⁴⁰ and finally laid to rest in the 2018 Spending Bill.¹⁴¹ In its obituary, the *Washington*

¹³¹ Gerard F. Anderson et al., *It’s the Prices, Stupid: Why the United States Is SO Different from Other Countries*, 22 HEALTH AFF. 89, 90-103 (2003).

¹³² Robert Langreth, *Drug Prices*, Bloomberg (Jan. 25, 2016), <https://www.bloomberg.com/quicktake/drug-prices>.

¹³³ Tara Bannow, *Report Finds Hospitals Drive Overall Healthcare Price Growth*, MOD. HEALTHCARE (Apr. 13, 2018), <http://www.modernhealthcare.com/article/20180413/NEWS/180419947>.

¹³⁴ Dean Baker, *The Problem of Doctors’ Salaries*, POLITICO, (Oct. 25, 2017, 5:03 AM), <https://www.politico.com/agenda/story/2017/10/25/doctors-salaries-pay-disparities-000557>.

¹³⁵ Christy F. Chapin, *How Health Care Went Wrong*, N.Y. TIMES, June 19, 2017, at A19.

¹³⁶ Patient Protection and Affordable Care Act § 2718, 42 U.S.C. § 300gg-18 (2012).

¹³⁷ *Id.* § 3403, 42 U.S.C. § 1395kkk-1 (repealed 2018).

¹³⁸ Editorial Board, *The So-called Obamacare Death Panel Meets Its Unfortunate End*, WASH. POST, (Feb. 9, 2018), https://www.washingtonpost.com/opinions/the-so-called-death-panel-meets-its-unfortunate-end/2018/02/09/b4c3a23c-0cfd-11e8-8b0d-891602206fb7_story.html.

¹³⁹ *Explaining Health Care Reform: Medical Loss Ratio (MLR)*, HENRY J. KAISER FAMILY FOUND. (Feb. 29, 2012), <https://www.kff.org/health-reform/fact-sheet/explaining-health-care-reform-medical-loss-ratio-mlr/>.

¹⁴⁰ Sahil Kapur, *Why Republicans Are Fighting to Repeal Obama’s Medicare Cost-Cutting Board*, TALKING POINTS MEMO (Feb. 28, 2012, 12:29 AM), <https://talkingpointsmemo.com/dc/why-republicans-are-fighting-to-repeal-obama-s-medicare-cost-cutting-board>.

¹⁴¹ Mike DeBonis & Erica Werner, *Brief Government Shutdown Ends as Trump Signs Spending Bill*, WASH. POST: POWERPOST (Feb. 9, 2018), <https://www.washingtonpost.com/>

Post opined that “[t]he IPAB . . . represented Congress’s peak effort at serious spending restraint on health care, which is probably why it had few champions and a long list of enemies. Now, before ever beginning its work, IPAB has been smothered.”¹⁴²

D. Managed Competition: HillaryCare for the Digital Age

According to business analyst Ben Thompson, “the most important consequence of the Internet . . . was the reduction of the cost of distribution to effectively zero.”¹⁴³ Amazon had a novel approach to the cost of distribution. It made the cost of distribution *appear* to be free by having its customers pre-pay through Prime. At that point, big box stores, grocery stores, bookstores, etc., lost their distribution monopolies. According to Thompson, once a distribution monopoly is lost, disruption occurs. First, Internet-based companies can take over the ownership of customers. Second, once products are no longer protected by the cost-based distribution monopoly they are easier to commodify.¹⁴⁴ It is that commodification of health services and products that may be at the core of the Prime Health construct.

The lack of insurer interest in engaging in meaningful cost containment and the absence of government negotiation¹⁴⁵ combine to keep healthcare prices high. High margins and unhelpful intermediaries are anathema to Amazon’s view of commerce. After all, as noted by Malcolm Harris, “[t]he world’s biggest store doesn’t use suggested retail pricing; it sets its own.”¹⁴⁶ Disintermediating insurers could be the first step in a “disintermediate-commoditize-build out” strategy.

As to the second step, Thompson speculates that Prime Health will build out “interfaces” for its employees to access existing healthcare services (presumably treatment, care, equipment, pharmacies, etc.). Then it will build “infrastructure for

powerpost/congress-passes-sweeping-budget-bill-ending-brief-shutdown/2018/02/09/6021367e-0d69-11e8-8890-372e2047c935_story.html?.

¹⁴² Editorial Board, *supra* note 138.

¹⁴³ Ben Thompson, *The Great Unbundling*, STRATECHERY (Jan. 18, 2017), <https://stratechery.com/2017/the-great-unbundling/>.

¹⁴⁴ *Id.*

¹⁴⁵ See 42 U.S.C. § 1395w–111(i) (2012); see also Tony Abraham, *Azar Says Admin 'Does Not Believe in' Medicare Drug Price Negotiations*, HEALTHCARE DIVE (May 16, 2018), <https://www.healthcaredive.com/news/azar-says-admin-does-not-believe-in-medicare-drug-price-negotiations/523678/>.

¹⁴⁶ Malcolm Harris, *The Singular Pursuit of Comrade Bezos*, MEDIUM (Feb. 15, 2018), <https://medium.com/s/story/the-singular-pursuit-of-comrade-bezos-3e280baa045c>.

those healthcare suppliers, requiring them to serve Amazon's employees using a standard interface."¹⁴⁷ That infrastructure will then morph into a marketplace where services compete to serve the employees. Essentially, if these hypotheses play out, Prime Health will have disintermediated health insurance companies and set the stage for the commoditization of healthcare services.¹⁴⁸

Once health insurers are disintermediated, Prime Health will be free to build the marketplace of its choice. At first sight, ABJ may take the Obama-era construct of the Health Insurance Marketplace, designed to link patients to insurers (the traditional *sine qua non* for healthcare),¹⁴⁹ but re-engineer it to link patients to providers. However, the Prime Health construct arguably may go further. If ABJ is seeking to be an agent of change and provide a structure whereby those providing healthcare services at all levels compete for ABJ dollars, the Prime Health construct may resemble the Clinton managed competition plan of the 1990s more than the managed care of the 1980s or the ACA's individual exchange marketplaces.¹⁵⁰ In this iteration, the non-profit Prime Health would replace the federal government in "managing" the competition. And if successful, the strategy will lead to the third step, building out Prime Health as a product to be offered outside of ABJ. ABJ's founding companies would be the first and maybe best customers of Prime Health, but eventually not the only ones.

E. Delivery and Services

Assuming the existence of some form of marketplace, questions arise as to the extent ABJ will build out its own services and how disaggregated the non-ABJ services offered on the marketplace will be. For example, it is obvious that Amazon already has efficient interfaces to somewhat commoditize OTC pharmaceuticals, and Amazon seems to be expanding into Rx pharmaceuticals. Equally, Amazon is

¹⁴⁷ Thompson, *supra* note 50.

¹⁴⁸ *Id.*

¹⁴⁹ Patient Protection and Affordable Care Act § 1311(b), 42 U.S.C. § 18031 ("Each State shall . . . establish an American Health Benefit Exchange . . ."). See generally *What is the Health Insurance Marketplace?*, U.S. DEP'T HEALTH & HUM. SERVS., <https://www.hhs.gov/answers/affordable-care-act/what-is-the-health-insurance-marketplace/index.html> (last visited Nov. 1, 2018).

¹⁵⁰ Robert Pear, *Clinton's Health Plan: The Overview; Congress is Given Clinton Proposal for Health Care*, N.Y. TIMES, Oct. 28, 1993, at A1. See generally Alain C. Enthoven, *The History and Principles of Managed Competition*, 12 HEALTH AFF. 24 (1993).

already an established seller of Durable Medical Equipment (“DME”).¹⁵¹ After these are established, the difficult question will be what to build and what to outsource in terms of services.

One answer would be to outsource the entire services bundle: primary, secondary, tertiary, and quaternary care.¹⁵² This is an approach increasingly favored by large employers. For example, General Motors has contracted directly with the Henry Ford Health System to offer a healthcare option for its non-union employees under which the hospital system will provide all services.¹⁵³ As part of its “Centers of Excellence” program, Walmart contracted with the Cleveland Clinic Heart & Vascular Institute for some tertiary and quaternary services (heart, transplant, and spine care) for its employees.¹⁵⁴

However, these relationships, like other direct-care models, are not as disruptive as would first appear. In these models, health insurers are still used as intermediaries, providing Administrative Services Only (“ASO”) in much the same way as in fully-funded employer-provided group insurance.¹⁵⁵

Accordingly, Prime Health is unlikely to follow a simple outsourcing model. ABJ already has considerable negotiating weight and would not need to build a new non-profit corporate structure to execute such a strategy. The answer could be partial outsourcing, building out primary care through either free-standing or Whole Foods-based clinics,¹⁵⁶ and using an ASO model for higher tier services. This also feels like a half-hearted attempt at change that fails to reflect Amazon’s DNA. In the end, the purchase of a hospital chain or some other conventional healthcare asset is possible, if not probable.¹⁵⁷

¹⁵¹ *Durable Medical Equipment*, AMAZON, <https://www.amazon.com/Durable-Medical-Equipment/b?ie=UTF8&node=10287908011> (last visited Oct. 22, 2018).

¹⁵² See generally Trisha Torrey, *Primary, Secondary, Tertiary, and Quaternary Care*, VERYWELLHEALTH (Sep. 18, 2018), <https://www.verywellhealth.com/primary-secondary-tertiary-and-quaternary-care-2615354> (defining primary, secondary, tertiary, and quaternary care).

¹⁵³ See Anna W. Mathews, *GM Cuts Different Type of Health-Care Deal*, WALL ST. J. (Aug. 6, 2018, 9:52 PM), <https://www.wsj.com/articles/gm-cuts-different-type-of-health-care-deal-15335821211>.

¹⁵⁴ Brie Zeltner, *Walmart to Send Employees to Cleveland Clinic for Heart Care*, PLAIN DEALER, Oct. 12, 2012, at B2.

¹⁵⁵ See generally ANDREW AUSTIN & THOMAS L. HUNGERFORD, CONG. RESEARCH SERV., R40834, *THE MARKET STRUCTURE OF THE HEALTH INSURANCE INDUSTRY* 22, 28, 36 (2010).

¹⁵⁶ See Thompson, *supra* note 40.

¹⁵⁷ See generally Terry, *supra* note 45.

F. Caveats

Prime Health could head in many different directions. Certainly, there are many issues and possible hurdles to monitor. The weakest link in the disintermediate-commoditize-build out model is the second—persuading those who sell high margin healthcare products and services to enter the Prime Health “trap.” This will be challenging, especially as the likely endgame is that their products or services will be commodified (or at least their competition will be “managed”). After all, unlike the German healthcare systems, there is no government mandate that regional providers negotiate as a unit.¹⁵⁸ Some trend lines could play into ABJ’s hands. Increased premiums, escalating OOP costs, and the rise of limited benefit health plans could make healthcare increasingly unaffordable for consumers. Alternatively, there may be a point at which the federal government successfully caps its healthcare expenditures by reducing Medicare services and converting Medicaid to block grants. In short, there are scenarios where having Amazon pick up excess capacity could be attractive to service and product suppliers. Waiting for this moment is where Amazon’s renowned patience may come in to play.

Another issue is over-utilization. A primary motive behind moving towards value-based care and away from fee-for-service reimbursement¹⁵⁹ is to move towards consumers “pulling” necessary and patient-centric services and away from physicians “pushing” services (i.e. provider-induced consumption).¹⁶⁰ In its search to make the consumer purchasing friction-free, Amazon has built an array of consumer-facing tools (i.e. Prime, Subscribe & Save, Dash Buttons, Echo devices, etc.) that are designed to encourage consumers to buy (i.e. pull) more and more products. To control utilization ABJ will need to mimic the re-conceptualization currently being asked of healthcare and tweak its algorithms to move from quantity to value.

¹⁵⁸ Reinhard Busse & Miriam Blümel, *Health Systems in Transition*, 16 GER.: HEALTH SYS. REV. 1, 44 (2014) (describing the German system wherein physicians accredited to treat patients under the German statutory health insurance scheme are organized into mandatory regional associations).

¹⁵⁹ See e.g., Michael E. Porter et al., *Redesigning Primary Care: A Strategic Vision to Improve Value by Organizing Around Patients’ Needs*, 32 HEALTH AFF. 516 (2013).

¹⁶⁰ See generally Mark Graban, *#Lean: Clarifying Push, Pull, and Flow in a Hospital; the Patient “Pulls,”* LEAN BLOG (Feb. 24, 2014), <https://www.leanblog.org/2014/02/flow-push-and-pull-in-a-hospital/> (“‘Pull’ is the concept of basically building in response to actual customer demand . . . Pull reduces costs, improves quality, and makes sure the customer gets what they want, when they need it, in the right quantities.”).

No doubt Prime Health is developing alternative strategies and its strategic focus will likely adapt and shift over time. It is, however, difficult to imagine an Amazon-linked product that does not focus on consumer satisfaction, extensively leverage data, build out its own profit centers to replace services it has historically paid for, and reduce transactional friction.

IV REGULATING HYBRID HEALTHCARE

The past decade or so has witnessed an interesting race: whether healthcare providers would become technology-driven businesses more quickly than technology companies would learn how to provide healthcare services.¹⁶¹ Increasingly, it seems that the technology companies will win that race. Healthcare technologies, from apps, to robotics, to AI are developing far faster than conventional healthcare can reinvent itself. At the same time, technology companies do not have to deal with innovation-sapping third-party reimbursement. Nor have technology companies had to cope with the complex regulatory structures faced by healthcare insurers, providers, and researchers.¹⁶²

As already noted, the major technology companies investing heavily in healthcare are choosing different strategies, stressing different types of technologies (for example, apps rather than AI), and concentrating on different markets (for example, consumers rather than healthcare entities).¹⁶³ Whatever the technology-conventional healthcare “mix” they settle on, these technology companies will likely be operating some type of hybrid healthcare entities.

This evolving hybrid typology raises some interesting regulatory questions. The assumption is that the current mixture of federal and state regulatory frameworks will apply, although often without success.

¹⁶¹ See generally Nicolas P. Terry, *Appification, AI, and Healthcare’s New Iron Triangle*, 20 J. HEALTH CARE L. & POL’Y 117, 178-79 (2018).

¹⁶² See Robert I. Field, *Why is Health Care Regulation So Complex?*, 33 PHARMACY AND THERAPEUTICS 607 (2008).

¹⁶³ See *supra* Part I.

A. Applicability of Federal Law

1. Drug and Device Regulation

As discussed above, there is little reason to believe that ABJ will enter the pharmaceutical production space (primarily because of research and development and intellectual property costs), although it might be interested in the distribution of generics made by others. It is more likely that ABJ will look to reduce Prime Health drug costs by disintermediating not only insurers but also pharmacy benefit managers and leveraging its purchasing power to create a cost-effective formulary. As such, ABJ will need to comply with state pharmacy licensure regulations,¹⁶⁴ an area in which Amazon has expertise through its experience with drugstore.com¹⁶⁵ and its current pharmacy properties.¹⁶⁶

Devices, however, may be a different matter. Amazon designs and sells an array of intelligent assistant products¹⁶⁷ for use inside and outside of the home.¹⁶⁸ Alexa's AI engine is now incorporated in 20,000 devices manufactured by a diverse set of companies, from home thermostats, to alarm systems, to automobiles.¹⁶⁹ In the near future it is likely to find its way into more advanced products such as home robots.¹⁷⁰

Intelligent assistants are unlikely to be a core part of Prime Health's initial roll-out (the priority should be the marketplace). It is hard, however, to imagine that technologically-mediated care will not be a major part of Prime Health. That raises the likelihood that Alexa-enabled devices will start processing health data. These devices could make physician appointments, request simple prescription renewals, prompt medication adherence, and compile competitive, value-driven offers for

¹⁶⁴ See e.g., *Information for Pharmacists, Pharmacies, and Pharmacy Technicians*, TEXAS STATE BOARD OF PHARMACY, <https://www.pharmacy.texas.gov/Licensing.asp> (last visited Oct. 22, 2018).

¹⁶⁵ Taylor Soper, *Walgreens to Shut Down Drugstore.com, 4 Years After \$429M Acquisition*, GEEKWIRE, (July 28, 2016, 10:14 AM), <https://www.geekwire.com/2016/walgreens-shut-drugstore-com-4-years-429m-acquisition/>.

¹⁶⁶ See Spear, *supra* note 59.

¹⁶⁷ See Bezos, *supra* note 71.

¹⁶⁸ Scot Hornick & Shri Santhanam, *How Smart Speakers Are Poised to Reinvent the Travel Industry*, HARV. BUS. REV. (Aug. 7, 2018), <https://hbr.org/2018/08/how-smart-speakers-are-poised-to-reinvent-the-travel-industry>.

¹⁶⁹ Ben F. Rubin, *Amazon's Alexa Assistant Now Works with Over 20K Devices*, CNET (Sept. 1, 2018, 6:41 AM), <https://www.cnet.com/news/amazon-alexa-assistant-is-now-in-20k-devices/>.

¹⁷⁰ See generally Terry, *supra* note 161.

surgical interventions. To the extent that Alexa-enabled devices are used to process health data, they may fall within the purview of the Food, Drug, and Cosmetic Act (FDCA), which defines a “device,” in part, as an instrument “intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease, in man.”¹⁷¹ This is to say that Alexa-enabled devices will likely cross the line that separates consumer devices from FDA-regulated medical devices at some point.

As per FDA-issued guidance, the FDA exercises discretion with regard to very low risk devices and has typically excluded from regulation many fitness devices and some mobile medical apps.¹⁷² The 21st Century Cures Act of 2016 formally extended that exclusion to some fitness software.¹⁷³ However, neither that reform nor the reissued draft guidance on app software¹⁷⁴ is likely to protect Amazon from a “device” characterization if Alexa is medicalized.

Finally, a recent initiative, the FDA’s Precertification (Pre-Cert) Program, is designed to better align regulatory and technology iteration cycles by using a surrogate device approval based on approving manufacturers and their safety-testing protocols.¹⁷⁵ Other healthcare hybrids, including Apple and Verily, are part of that program; Amazon is not.¹⁷⁶ Amazon signaling interest in Pre-Cert would signal how Alexa’s AI may be deployed within Prime Health.

¹⁷¹ Federal Food, Drug, and Cosmetic Act § 201(h), 21 U.S.C. § 321(h)(2) (2012).

¹⁷² See generally Nicolas P. Terry, *Mobile Health*, 147 CHEST J. 1429 (2015); Nicholas P. Terry & Tracy D. Gunter, *Regulating Mobile Mental Health Apps*, 36 BEHAV. SCI. L. 136 (2018).

¹⁷³ 21st Century Cures Act § 3060, 21 U.S.C. § 360j(o).

¹⁷⁴ U.S. FOOD & DRUG ADMIN., CHANGES TO EXISTING MEDICAL SOFTWARE POLICIES RESULTING FROM SECTION 3060 OF THE 21ST CENTURY CURES ACT: DRAFT GUIDANCE FOR INDUSTRY AND FOOD AND DRUG ADMINISTRATION STAFF (2017), <https://www.fda.gov/downloads/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/UCM587820.pdf>.

¹⁷⁵ See generally *Digital Health Software Precertification (Pre-Cert) Program*, U.S. FOOD & DRUG ADMIN., <https://www.fda.gov/medicaldevices/digitalhealth/digitalhealthprecertprogram/default.htm> (last updated Sept. 27, 2018); Nathan G. Cortez et al., *Questions About The FDA’s New Framework For Digital Health*, HEALTH AFF.: HEALTH AFF. BLOG (Aug. 16, 2017), <https://www.healthaffairs.org/doi/10.1377/hblog20170816.061554/full/>.

¹⁷⁶ See *Digital Health Software Precertification (Pre-Cert) Program*, *supra* note 175.

2. Data Protection

Amazon has avoided serious scrutiny of its data practices even while other major digital companies such as Facebook have been rife with scandal.¹⁷⁷ While Amazon shares data with a limited number of third parties and mines customer data to make purchase recommendations, so far Amazon seems to view customer data as a closely held asset rather than something to be sold.¹⁷⁸ The primary reason Amazon does not have a data protection problem has less to do with its data policies than it does with the fact that, at least in the U.S., it (along with Facebook, Google, and Apple) exists in a severely under-regulated space.¹⁷⁹ In broad terms, companies holding vast stores of consumer data are essentially unregulated so long as they comply with their own privacy policies.¹⁸⁰

Unlike consumer data regulation, U.S. data protection for health information is relatively robust.¹⁸¹ The Privacy and Security Rules promulgated under the Health Insurance Portability and Accountability Act of 1996 (HIPAA) broadly apply to both traditional healthcare providers and their business associates holding individually identifiable health information.¹⁸² Subject to some exceptions, the HIPAA Privacy Rule prohibits the sharing of personal health information with those outside the

¹⁷⁷ See, e.g., Dylan Curran, *Are you ready? Here is all the data Facebook and Google have on you*, GUARDIAN (Mar. 28, 2018, 6:00 AM), <https://www.theguardian.com/commentisfree/2018/mar/28/all-the-data-facebook-google-has-on-you-privacy#img-1>; Hillary Grigoris, *9 Things to Know About Facebook Privacy and Cambridge Analytica*, DIGITAL TRENDS (Apr. 5, 2018, 8:06 AM), <https://www.digitaltrends.com/social-media/what-facebook-users-should-know-about-cambridge-analytica-and-privacy/>; Alyssa Newcomb, *A Timeline of Facebook's Privacy Issues—and its Responses*, NBC NEWS (Mar. 24, 2018, 7:02 AM), <https://www.nbcnews.com/tech/social-media/timeline-facebook-s-privacy-issues-its-responses-n859651>.

¹⁷⁸ Jack Morse, *Facebook Isn't the Only Tech Company with Too Much of Your Data*, MASHABLE (Apr. 14, 2018), <https://mashable.com/2018/04/14/google-amazon-facebook-cambridge-analytica/#50O.gYrlzPqW>.

¹⁷⁹ See generally Nicolas P. Terry, *Regulatory Disruption and Arbitrage in Health-Care Data Protection*, 17 YALE J. HEALTH POL'Y L. & ETHICS 143, 173-84 (2017) (noting the consumer healthcare domain is less regulated than the professional domain).

¹⁸⁰ See generally *Privacy and Security Enforcement*, FED. TRADE COMM'N, <https://www.ftc.gov/news-events/media-resources/protecting-consumer-privacy/privacy-security-enforcement> (last visited Oct. 27, 2018).

¹⁸¹ See Terry, *supra* note 179, at 168-73; see also Nicolas P. Terry & Lindsay F. Wiley, *Liability for Mobile Health and Wearable Technologies*, 25 ANNALS HEALTH L. 62 (2016); Nicolas P. Terry, *Will the Internet of Things Transform Healthcare?*, 19 VAND. J. ENT. & TECH. L. 327 (2016).

¹⁸² 45 C.F.R. pts. 160, 162, 164 (2018).

healthcare domain.¹⁸³ For hybrid companies to be drawn into the HIPAA web, it would not be enough for them to merely hold or process personal health information.¹⁸⁴ Rather, the hybrid would have to satisfy the HIPAA Privacy Rule’s definition of “covered entity.”¹⁸⁵ Included in this definition is a “health plan,” which the Act defines as an “individual or group plan that provides, or pays the cost of, medical care.”¹⁸⁶ In short, Prime Health would be covered by HIPAA if it were held to be an “insurer” or a “group health plan.” The former is possible, as discussed below, but the latter is probable.¹⁸⁷ The specifics of HIPAA compliance for group insurance plans¹⁸⁸ should be no surprise to Amazon, as this is the model Amazon currently uses to provide coverage to its employees.¹⁸⁹

¹⁸³ See, e.g., 45 C.F.R. § 164.502.

¹⁸⁴ A small exception exists for non-healthcare data custodians who hold personal health records who are subject to a special data notification rule. See *Complying with the FTC’s Health Breach Notification Rule*, FED. TRADE COMM’N, <https://www.ftc.gov/tips-advice/business-center/guidance/complying-ftcs-health-breach-notification-rule> (last visited Oct. 27, 2018).

¹⁸⁵ The HIPAA Privacy Rule defines a “covered entity” as follows:

Covered entity means:

- (1) A health plan.
- (2) A health care clearinghouse.
- (3) A health care provider who transmits any health information in electronic form in connection with a transaction covered by this subchapter.

45 C.F.R. § 160.103.

¹⁸⁶ *Id.*

¹⁸⁷ The HIPAA Privacy Rule defines “group health plan” as follows:

Group health plan . . . means an employee welfare benefit plan . . . including insured and self-insured plans, to the extent that the plan provides medical care . . . , including items and services paid for as medical care, to employees or their dependents directly or through insurance, reimbursement, or otherwise, that:

- (1) Has 50 or more participants . . . ; or (2) Is administered by an entity other than the employer that established and maintains the plan.

Id.

¹⁸⁸ See, e.g., 45 C.F.R. § 164.504(f).

¹⁸⁹ See AMAZON, BENEFITS ENROLLMENT GUIDE 2017-2018 16-18, https://amazon.ehr.com/ESS/Client/Documents/BenefitSummaries/AMZ%202017_OE_ITS_FT_Guide_Final_20170130.pdf.

While Amazon is capable of achieving HIPAA-class security,¹⁹⁰ its current Alexa-enabled devices are unlikely to survive a HIPAA audit.¹⁹¹ Further, Prime Health would require a privacy model (and culture) that would be distinct from Amazon's own, and ABJ would need to resist attempts by its partners to cross-market or data-mine using Prime Health data.

3. *Insurance, ERISA, and Fiduciary Duties*

Assuming the premise that Prime Health will disintermediate existing health insurers (at least for ABJ employees), the question arises whether it will be considered an "insurer" engaging in the "business of insurance," within the meaning of the McCarran-Ferguson Act,¹⁹² for regulatory purposes. Although that could be a fascinating inquiry and there are some indications that Amazon is entering insurance markets in other countries,¹⁹³ this is not a crucial inquiry given the current regulatory model in the U.S.

The McCarran-Ferguson Act reserves insurance regulation to the states.¹⁹⁴ If Prime Health is structured as a fully insured plan (i.e. ABJ pays premiums to a health insurer to cover its employees), it will be subject to diverse state insurance regulations. These include, for example, licensing, benefits, consumer protection, and dispute resolution regulations. However, this would be extremely unlikely if Prime Health is not structured as a self-funded plan in which the employer takes the risk subject to stop-loss reinsurance. In general terms, self-funded plans are viewed as employee benefits subject to the Employee Retirement Income Security Act of 1974 (ERISA).¹⁹⁵

¹⁹⁰ See *HIPPA*, AMAZON WEB SERVICES, <https://aws.amazon.com/compliance/hipaa-compliance/> (last visited Oct. 17, 2018).

¹⁹¹ Jack Murtha, *Amazon's Alexa Really Isn't Ready For Healthcare*, HEALTHCARE ANALYTICS NEWS (May 24, 2018), <http://www.hcanews.com/news/amazons-alexa-really-isnt-ready-for-healthcare>.

¹⁹² See McCarran-Ferguson Act, 15 U.S.C. §§ 1011-15 (2012).

¹⁹³ Maria Terekhova, *Amazon Pushes Further into Insurance with its Latest Investment*, BUS. INSIDER (Jan. 5, 2018, 9:20 AM), <https://www.businessinsider.com/amazon-pushes-further-into-insurance-with-its-latest-investment-2018-1>.

¹⁹⁴ 15 U.S.C. §§ 1011-12.

¹⁹⁵ Employee Retirement Income Security Act of 1974, Pub. L. No. 93-406, 88 Stat. 829 (codified as amended in scattered sections of 26 and 29 U.S.C.).

ERISA plays two roles. First, it applies some substantive federal regulation over self-funded plans, such as imposing fiduciary duties on the employer-insurer.¹⁹⁶ Second, ERISA preempts state insurance regulation for self-funded plans,¹⁹⁷ essentially deregulating employers’ self-funded plans. Some of that deregulation was countered by HIPAA Subtitle A and the ACA.¹⁹⁸ A broad preemptive approach to ERISA has been adopted by the United States Supreme Court,¹⁹⁹ and as Congress and the Trump Administration continue to deprecate ACA protections, the ERISA shield may become important again. ERISA (and the continued viability of the ACA) should provide some stable, national framework for the regulation of Prime Health insofar as Prime Health is viewed as an insurer or, more likely, as a self-funded health plan.

B. Applicability of State Laws

As mentioned, pursuant to the McCarran-Ferguson Act, Prime Health will be subject to state insurance regulations if it is structured as a fully insured plan. Outside of insurance regulation, ABJ will also face a broad array of state healthcare-related legislation and regulation requiring navigation.

ABJ’s employees are scattered across the country. Amazon alone has 140 fulfillment centers and a brick-and-mortar presence in an increasing number of states.²⁰⁰ As their physical presence expanded into more and more states, Amazon began collecting state sales taxes on purchases, albeit often in exchange for tax credits or other state largesse encouraging Amazon to set up shop locally.²⁰¹ (In fact,

¹⁹⁶ 29 U.S.C. § 1104. *See generally* U.S. DEP’T. LAB., EMP. BENEFITS SECURITY ADMIN., UNDERSTANDING YOUR FIDUCIARY RESPONSIBILITIES UNDER A GROUP HEALTH PLAN (2015), <https://www.dol.gov/sites/default/files/ebsa/about-ebsa/our-activities/resource-center/publications/understanding-your-fiduciary-responsibilities-under-a-group-health-plan.pdf>.

¹⁹⁷ 29 U.S.C. § 1144.

¹⁹⁸ *See generally* Abbe R. Gluck et al., *ERISA: A Bipartisan Problem for the ACA and the AHCA*, HEALTH AFF.: HEALTH AFF. BLOG (June 2, 2017), <https://www.healthaffairs.org/doi/10.1377/hblog20170602.060391/full/>.

¹⁹⁹ *Gobeille v. Liberty Mut. Ins. Co.*, 136 S. Ct. 496 (2015).

²⁰⁰ Dennis Green & Anaele Pelisson, *This Map of Amazon's Warehouse Locations Shows How It's Taking Over America*, BUS. INSIDER (Sept. 27, 2017, 12:14 PM), <http://www.businessinsider.com/amazon-warehouse-locations-in-us-2017-9>.

²⁰¹ Thad Rueter, *Amazon to Open Another Distribution Center in Indiana*, DIGITAL COM. 360 (Mar. 27, 2012), <https://www.digitalcommerce360.com/2012/03/27/amazon-open-another-distribution-center-indiana/> (noting \$2 million in tax credits and \$300,000 in training grants from the Indiana Economic Development Corp.).

they stopped relying on the *Quill Corp. v. North Dakota*²⁰² sales tax loophole long before *South Dakota v. Wayfair, Inc.*²⁰³) Currently, Amazon collects state sales tax on purchases in all forty-five states that have a statewide sales tax.²⁰⁴ In his Aspen Institute interview, Atul Gawande noted ABJ employees “are across the entire country.”²⁰⁵

Of course, there are broad policy disagreements among the states, creating differences in state laws relating to Medicaid expansion, scope of practice,²⁰⁶ telemedicine,²⁰⁷ and prescription drug cost controls.²⁰⁸ To the extent Prime Health begins to resemble traditional insurers or healthcare providers, ABJ will likely have to contend with a myriad of similar, but not identical, state licensing statutes,²⁰⁹ regulations,²¹⁰ and regulators²¹¹ that may increase the cost of providing interstate care. Judicial regulation of healthcare through tort and contract models is almost exclusively a matter of state law, featuring differences in the standard of care,²¹² the

²⁰² *Quill Corp. v. North Dakota*, 504 U.S. 298, 305-08 (1992) (finding states could not collect taxes from sellers lacking a physical presence in the state).

²⁰³ *South Dakota v. Wayfair, Inc.*, 138 S. Ct. 2080 (2018) (overruling *Quill Corp.*, 504 U.S. 298).

²⁰⁴ Chris Isidore, *Amazon to Start Collecting State Sales Taxes Everywhere*, CNN (Mar. 29, 2017, 2:59 PM), <http://money.cnn.com/2017/03/29/technology/amazon-sales-tax/index.html>.

²⁰⁵ Conversation with Atul Gawande, *supra* note 103.

²⁰⁶ See *Credentialing, Licensing, and Education*, NAT’L CTR. FOR COMPLEMENTARY AND INTEGRATIVE HEALTH, <https://nccih.nih.gov/health/decisions/credentialing.htm> (last visited Oct. 28, 2018) (discussing state to state variations in credentialing and licensing standards); see also *N.C. State Bd. of Dental Exam’rs v. FTC*, 135 S. Ct. 1101 (2015).

²⁰⁷ See, e.g., *Telemedicine Laws and Developments: A State-by-State Analysis*, BECKER’S HOSP. REV. (Aug. 22, 2014), <https://www.beckershospitalreview.com/healthcare-information-technology/telemedicine-laws-and-developments-a-state-by-state-analysis.html> (last visited Nov. 21, 2018).

²⁰⁸ See, e.g., *Health*, NAT’L CONF. OF ST. LEGISLATURES, <http://www.ncsl.org/research/health.aspx> (last visited November 4, 2018).

²⁰⁹ See, e.g., IND. CODE §§ 16-18-2-179, 16-21-2, 25-22.5-1-1.1, 27-8-10-1 (2018).

²¹⁰ See, e.g., 844 IND. ADMIN. CODE 5-1-1 et seq. (2018).

²¹¹ See, e.g., IND. CODE § 25-22.5-2-1; see also *Bever v. State Bd. of Registration for Healing Arts*, No. WD 57880, 2001 WL 68307 (Mo. Ct. App. Jan. 30, 2001) (state board disciplinary inquiry into alleged substandard care).

²¹² Compare *Sheeley v. Mem’l Hosp.*, 710 A.2d 161 (R.I. 1998) (national standard of care), with *Hagedorn v. Peterson*, 690 N.W.2d 84 (Iowa 2004) (retaining the “locality” rule).

disclosure model for informed consent,²¹³ and the rules defining the “corporate” liability of healthcare entities.²¹⁴

Large corporations operating in multiple states will generally recognize and “price-in” such differences between state laws. This is expected. However, state laws that have anti-competitive effects may have more of a surprising result. Two laws that qualify are the corporate practice of medicine doctrine (“CPM”) and certificate of need laws (“CON”).

1. Corporate Practice of Medicine Doctrine

The CPM doctrine is an offshoot of the historical licensing of persons in the “practice of medicine.”²¹⁵ Corporate entities such as HMOs did not enter the healthcare provider space until the 1970s, and corporate consolidation of healthcare entities did not become pronounced until the 1980s.²¹⁶ Not surprisingly, the licensing processes and criteria that developed in the late nineteenth century were framed by and for physicians and not for then unforeseen clinicians such as nurse practitioners or healthcare corporate entities.²¹⁷

Broadly stated, the CPM doctrine prohibits corporations from either practicing medicine (a variant is to require entities to be owned by physicians) or employing physicians to do the same. In contemporary practice, the justifications for the continued existence of the doctrine are the primacy of individual physician judgment²¹⁸ and quality of care.²¹⁹ Perhaps dubious policy justifications aside, one of

²¹³ Compare *Largey v. Rothman*, 540 A.2d 504 (N.J. 1988) (prudent patient standard), with *Eady v. Lansford*, 92 S.W.3d 57 (Ark. 2002) (physician standard), and IND. CODE §§ 34-18-12-2 to -3 (rebuttable presumption of consent from signing consent form).

²¹⁴ Compare *Larson v. Wasemiller*, 738 N.W.2d 300 (Minn. 2007) (explaining the limited duty of “negligent credentialing”), with *Thompson v. Nason Hosp.*, 591 A.2d 703, 707-08 (Pa. 1991) (explaining the broad application of corporate negligence). See generally Barry R. Furrow, *Enterprise Liability and Health Care Reform: Managing Care and Managing Risk*, 39 ST. LOUIS U. L.J. 79 (1994).

²¹⁵ See generally William C. Tait, *The Legal Definition of the Practice of Medicine*, 2 CAL. ST. J. MED. 119, 119–21 (1904).

²¹⁶ See PAUL STARR, *THE SOCIAL TRANSFORMATION OF AMERICAN MEDICINE* 428-36 (1982).

²¹⁷ See *id.* at 102-11.

²¹⁸ *Corporate Practice of Medicine*, MED. BOARD. CAL., http://www.mbc.ca.gov/Licensees/Corporate_Practice.aspx (last visited Nov. 5 2018) (“The policy . . . is intended to prevent unlicensed persons from interfering with or influencing the physician's professional judgment.”).

²¹⁹ For example, California considers the following to be unlicensed practice of medicine if performed by an unlicensed person:

the major problems with CPM is that the doctrine varies on a state-by-state basis. In the words of the Supreme Court of Illinois:

[S]ome jurisdictions refused to adopt the prohibition against the corporate practice of medicine altogether. . . . [O]ther jurisdictions determined that the corporate practice of medicine doctrine is inapplicable to nonprofit hospitals and health associations on the basis that the public policy arguments supporting the doctrine do not apply to physicians employed by charitable institutions. . . . [T]he remainder of jurisdictions have determined that the prohibition against the corporate practice of medicine does not apply to hospitals which employ physicians because hospitals are authorized under other laws to provide medical treatment to patients.²²⁰

According to Nicole Huberfeld, “[t]he corporate practice of medicine doctrine is a relic; a physician-centric guild doctrine that is at best misplaced, and at worst obstructive, in the present incarnation of the American healthcare system.”²²¹ It is, however, just the kind of relic that a radically restructured hybrid health entity may have to navigate.

2. *Certificate of Need Laws*

CON laws are another historic relic. The Hospital Survey and Construction Act, better known as the Hill–Burton Act of 1946,²²² was partly designed to modernize the post-war hospital system without overbuilding in particular areas.²²³

Determining what diagnostic tests are appropriate for a particular condition.

Determining the need for referrals to, or consultation with, another physician/specialist.

Responsibility for the ultimate overall care of the patient, including treatment options available to the patient.

Determining how many patients a physician must see in a given period of time or how many hours a physician must work.

Id.

²²⁰ *Carter-Shields v. Alton Health Inst.*, 777 N.E.2d 948, 956 (Ill. 2002).

²²¹ Nicole Huberfeld, *Be Not Afraid of Change: Time to Eliminate the Corporate Practice of Medicine Doctrine*, 14 HEALTH MATRIX 243, 243-45 (2004).

²²² Hospital Survey and Construction (Hill-Burton) Act, Pub. L. No. 79-725, 60 Stat. 1040 (1946) (codified as amended at 42 U.S.C. §§ 291 to 291o1-1 (2012)).

²²³ *CON-Certificate of Need State Laws*, NAT’L CONF. OF ST. LEGISLATURES (Aug. 17, 2018), <http://www.ncsl.org/research/health/con-certificate-of-need-state-laws.aspx>. See generally *The Hospital Survey and Construction Act*, 132 J. AM. MED. ASS’N 148 (1946).

States responded by passing CON laws designed to scrutinize proposals to build healthcare facilities. As explained by the National Conference of State Legislatures, “[t]he basic assumption underlying CON regulation is that excess capacity stemming from overbuilding of health care facilities results in health care price inflation.”²²⁴ The federal construct expired decades ago, yet most states have maintained some type of legislative or regulatory structure for determining whether proposed healthcare construction qualifies for a certificate of need.²²⁵

The ABJ partners should rightly conclude that CON laws are anticompetitive. As noted by the FTC, “[b]y interfering with the market forces that normally determine supply of services, CON laws can suppress competition and shield incumbent health care providers from competition from new entrants.”²²⁶ The Court of Appeals for the Fourth Circuit, however, is less receptive to the argument that CON laws are anticompetitive:

Appellants’ free market arguments also overlook the fact that the health care market has its own idiosyncrasies. . . . Squeezed by insurers, regulation, and obligations to provide indigent care at a financial loss, providers lack the customary freedom of a seller of services to set its price. Unprofitable but vital medical services do not reap providers the usual market rewards. Many of the classic features of a free market are simply absent in the health care context, and that fact counsels caution when courts are urged to dismantle regulatory efforts to counter perceived gaps and inefficiencies in the healthcare market.²²⁷

A company like Amazon that is accustomed to large tax breaks from states hoping to attract new fulfillment centers or even its second headquarters²²⁸ would no

²²⁴ *CON-Certificate of Need State Laws*, *supra* note 223.

²²⁵ *See id*; *see also* Matthew D. Mitchell & Christopher Koopman, *40 Years of Certificate-of-Need Laws Across America*, MERCATUS CTR. AT GEO. MASON U., (Sept. 27, 2016), <https://www.mercatus.org/publication/40-years-certificate-need-laws-across-america>.

²²⁶ FED. TRADE COMM’N, JOINT STATEMENT OF THE FEDERAL TRADE COMMISSION AND THE ANTITRUST DIVISION OF THE U.S. DEPARTMENT OF JUSTICE TO THE VIRGINIA CERTIFICATE OF PUBLIC NEED WORK GROUP (2015), https://www.ftc.gov/system/files/documents/advocacy_documents/joint-statement-federal-trade-commission-antitrust-division-u.s.department-justice-virginia-certificate-public-need-work-group/151026ftc-dojstmtva_copn-1.pdf.

²²⁷ *Colon Health Ctrs. of Am., LLC v. Hazel*, 813 F.3d 145, 158 (4th Cir. 2016) (challenging unsuccessfully Virginia’s CON law invoking the dormant commerce clause).

²²⁸ Elizabeth Weise, *Amazon Second Headquarters Search Has Become a Cultural Meme, A Year After It Began*, USA TODAY (Sept. 5, 2018, 5:00 AM), <https://www.usatoday.com/story/tech/news/2018/09/05/amazon-hq-2-search-has-become-cultural-meme-year-after-began/1180525002/>.

doubt be bewildered when faced with a state requirement that it justify the construction of Prime Health facilities.

V

(HOW) SHOULD HYBRID HEALTHCARE BE REGULATED?

The preceding observations about the application of federal and state regulatory models to hybrid healthcare entities is primarily descriptive. Due to pragmatic constraints, I have assumed that these novel entities will not be met by a new all-embracing regulatory model. After all, it is far too early to predict what the hybrids will look like or whether they will be sufficiently similar to make common regulation even possible.

Still, such a pragmatic conclusion conceals some potential concerns. For example, Frank Pasquale argues that “[major digital firms] are no longer market participants. Rather, in their fields, they are market makers, able to exert regulatory control over the terms on which others can sell goods and services.”²²⁹ He sees an even more dystopian regulatory future as these firms “aspire to displace more government roles over time, replacing the logic of territorial sovereignty with functional sovereignty.”²³⁰ However, the regulators are in retreat. Almost a generation of work building robust health insurance regulation culminating in the ACA and responsible consumer protection through the Consumer Financial Protection Bureau seems to be running on life support.²³¹

Some of the hurdles (for example, CPM and CON) that Prime Health may have to navigate are state laws that themselves have anticompetitive effects. However, the more important competitive question may be how major technology companies themselves impact markets. In August 2018, Amazon became the second company to reach a trillion-dollar market valuation,²³² a few weeks after Apple

²²⁹ Frank Pasquale, *From Territorial to Functional Sovereignty: The Case of Amazon*, L. & POL. ECON. (Dec. 6, 2017), <https://lpeblog.org/2017/12/06/from-territorial-to-functional-sovereignty-the-case-of-amazon/>.

²³⁰ *Id.*

²³¹ See, e.g., Jonathan Oberlander, *The Republican War on Obamacare—What Has It Achieved?*, 379 NEW ENG. J. MED. 703, (Aug. 23, 2018); Alan Rappeport, *What’s in a Name? Consumer Bureau to Find Out*, N.Y. TIMES (Jun. 12, 2018), <https://www.nytimes.com/2018/06/12/business/consumer-protection-bureau-mulvaney.html>.

²³² Laura Stevens & Amrith Ramkumar, *Amazon Hits \$1 Trillion Valuation*, WALL ST. J., (Sept. 4, 2018, 4:11 PM), <https://www.wsj.com/articles/amazon-hits-1-trillion-valuation-1536075734>.

achieved the same feat.²³³ The healthcare ambitions of the two largest companies have not been lost on incumbents. Indeed, the CVS-Aetna merger,²³⁴ itself an attempt to remake healthcare delivery, was likely partially driven by the threat of Prime Health²³⁵ and the government’s blocking of horizontal mergers between insurers.²³⁶ The combined company could leverage CVS’s retail health clinics to provide low cost primary care and, by making it easier to reach patients, enable preventative care.²³⁷ This would enable Aetna to partially disintermediate physician practices, particularly those who refer patients to their networked (and expensive) secondary and tertiary care providers.

Healthcare has experienced unprecedented levels of deal making in the years following the passage of the ACA. Between 2013 and 2017, almost twenty percent of U.S. hospitals merged with or were acquired by another hospital.²³⁸ The result is

²³³ Sara Salinas, *Apple Hangs onto Its Historic \$1 Trillion Market Cap*, CNBC (Aug. 2, 2018, 11:48 AM), <https://www.cnbc.com/2018/08/02/apple-hits-1-trillion-in-market-value.html>.

²³⁴ Press Release, CVS Health, *CVS Health Announces Management Team for Combined Company Following Close of Aetna Acquisition Transaction* (June 6, 2018), <https://cvshealth.com/newsroom/press-releases/cvs-health-announces-management-team-combined-company-following-close-aetna>.

²³⁵ Reed Abelson, *As Health Care Changes, Insurers, Hospitals and Drugstores Team Up*, N.Y. TIMES, (Nov. 26, 2017), <https://www.nytimes.com/2017/11/26/health/health-care-hospitals-insurers.html?>.

²³⁶ Compare Press Release, Aetna, *Aetna and Humana Mutually End Merger Agreement* (Feb. 14 2017), <https://news.aetna.com/news-releases/aetna-and-humana-mutually-end-merger-agreement/>, and *Delaware Judge Denies Anthem Injunction, Effectively Ending Cigna Merger*, CNBC (May 12, 2017, 7:02 AM), <https://www.cnbc.com/2017/05/12/delaware-judge-denies-anthem-injunction-effectively-ending-cigna-merger.html>, with Cecilia Kang & Edmund Lee, *AT&T-Time Warner Deal Approval Gets Justice Department Challenge*, N.Y. TIMES (July 12, 2018), <https://www.nytimes.com/2018/07/12/business/justice-department-plans-appeal-of-att-time-warner-merger-approval.html> (showing vertical mergers seem to trouble regulators less).

²³⁷ Paul R. La Monica, *What the CVS-Aetna Deal Means for Consumers*, CNN (Dec. 5, 2017, 7:51 AM), <http://money.cnn.com/2017/12/04/investing/cvs-aetna-consumers/index.html>.

²³⁸ Steven Findlay, *Can A Community Hospital Stay True to Its Mission After Sale to Large Corporation?*, KAISER HEALTH NEWS, (July 23, 2018), <https://khn.org/news/can-a-community-hospital-stay-true-to-its-mission-after-sale-to-large-corporation/>; see also *US Health Services Deals Insights: Q3 2018*, PwC, <https://www.pwc.com/us/en/health-industries/publications/health-services-quarterly-deals-insights.html> (last visited Nov. 5, 2018); Melanie Evans & Anna W. Mathews, *Hospital Giants in Talks to Merge to Create Nation’s Largest Operator*, WALL ST. J. (Dec. 10, 2017, 8:15 PM), <https://www.wsj.com/articles/hospital-giants-in-talks-to-merge-to-create-nations-largest-operator-1512921420>; Keshia Hannam, *Ascension and Providence St. Joseph in Talks to Form U.S.’s Largest Hospital Operator*, FORTUNE (Dec. 11, 2017), <http://fortune.com/2017/12/11/ascension-providence-merger/>.

that healthcare is arguably already over-concentrated and requires far more regulatory scrutiny to avoid declines in quality, cost containment,²³⁹ and local services.²⁴⁰

A very real question arises as to how antitrust regulators will react to large hybrid companies entering the healthcare space. Amazon's competitors and analysts act as though the company holds monopoly power. For example, after a report that Amazon had obtained wholesale pharmacy licenses, the stock prices of other drug distribution companies plunged.²⁴¹ But neither this "Amazon Effect" nor the company's unprecedented wealth and market share make Amazon a dictionary definition monopoly.²⁴² Indeed, it prompted Lina Khan to argue that the prevailing "antitrust doctrine [that] views low consumer prices, alone, to be evidence of sound competition"²⁴³ is a flawed model for assessing modern businesses such as Amazon. Khan argues that "a company's power and the potential anticompetitive nature of that power cannot be fully understood without looking to the structure of a business and the structural role it plays in markets."²⁴⁴

Khan's observations are particularly salient for Prime Health. Will success in reducing costs relative to traditional healthcare businesses give ABJ a pass or perhaps even some sort of award for finally bending the healthcare cost curve? Or will incumbents successfully argue that (allegedly) predatory pricing, customer data leveraging, and horizontal *and* vertical integration require enhanced regulatory scrutiny? It appears that the current Department of Justice position is that there is no evidence that the large technology companies are harming competition.²⁴⁵

²³⁹ Brent D. Fulton, *Health Care Market Concentration Trends in the United States: Evidence and Policy Responses*, 36 HEALTH AFF. 1530 (2017).

²⁴⁰ Casey Ross, *Paying More and Getting Less: As Hospital Chains Grow, Local Services Shrink*, STAT (Jan. 24, 2018), <https://www.statnews.com/2018/01/24/hospital-chains-services-consolidation/>.

²⁴¹ Rani Molla, *Amazon's Move into Wholesale Pharmaceuticals Sent Pharmacy Stocks Plunging*, RECODE (Oct. 27, 2017, 12:00 PM), <https://www.recode.net/2017/10/27/16559284/amazon-pharmaceutical-wholesale-stocks-plunging-amzn-cvs>.

²⁴² Coren, *supra* note 57.

²⁴³ Lina M. Khan, *Amazon's Antitrust Paradox*, 126 YALE L.J. 710, 716 (2017).

²⁴⁴ *Id.* at 716-17.

²⁴⁵ See David McLaughlin, *Trump Antitrust Chief Says No Sign of Competitive Harm from Tech*, BLOOMBERG (Sept. 28, 2018, 12:56 PM), <https://www.bloomberg.com/news/articles/2018-09-28/trump-antitrust-chief-says-no-sign-of-competitive-harm-from-tech>.

Antitrust aside, there are (or should be) three specific concerns regarding the Prime Health construct imagined herein. First, earlier it was noted how some technology firms working in the health space have apparently been granted special treatment through the FDA’s Pre-Cert program.²⁴⁶ Overall, this seems to be an appropriate way to explore nimbler models of regulation that are better suited to rapidly innovating products. However, as the FDA’s use of Pre-Cert, mobile app enforcement discretion,²⁴⁷ and other expedited regulatory processes (for example, *de novo* review applied to the ECG app in the new Apple Watch Series 4²⁴⁸) expands, the FDA will need to publish stronger guardrails to maintain our trust in the agency’s safety and efficacy reviews.

Second, as discussed above, there has always been a path-dependent, almost accidental quality to the involvement of employers in providing access to healthcare for their employees.²⁴⁹ This structure can cause concerns or even conflicts of interest when employers opt to retain the insurance risk and self-fund their employees’ health insurance and, for example, use an insurer for ASO. Pre-ACA ERISA protections were designed to cabin some of the greatest risks associated with direct employer involvement in benefits decisions.²⁵⁰ Similarly, the HIPAA Privacy Rule has specific provisions applying to employers who provide health insurance,²⁵¹ including the requirement that such employers build data “walls” between people or departments dealing with health insurance and, say, human resources.²⁵² Prime Health (and other businesses building out direct care models) may, however, involve building a far closer relationship between employers and the provision of healthcare to employees. There is danger of information acquired for healthcare purposes surfacing

²⁴⁶ See *supra* note 172 and accompanying text.

²⁴⁷ *Examples of Mobile Apps for Which the FDA Will Exercise Enforcement Discretion*, U.S. FOOD & DRUG ADMIN., <https://www.fda.gov/medicaldevices/digitalhealth/mobilemedicalapplications/ucm368744.htm> (last updated Aug. 1, 2016).

²⁴⁸ U.S. Food & Drug Admin., Classification Order on ECG App (Sept. 11, 2018), *available at* https://www.accessdata.fda.gov/cdrh_docs/pdf18/DEN180044.pdf.

²⁴⁹ Conversation with Atul Gawande, *supra* note 103.

²⁵⁰ *C.f.* Karl Polzer & Patricia A. Butler, *Employee Health Plan Protections Under ERISA*, 16 HEALTH AFF. 93 (1997) (stating that ERISA was designed to establish uniform federal standards for employee benefit plans that are offered through private employers and unions).

²⁵¹ 45 C.F.R. § 164.504 (2018).

²⁵² 45 C.F.R. § 164.504(f)(2).

elsewhere—as occurred, for example, during the outing of the AOL “distressed babies.”²⁵³

Third, and perhaps most importantly, there are growing concerns about how technology firms are subject to relatively little data protection regulation. This is especially alarming considering that technology companies will edge closer to our specific clinical data rather than “merely” aggregate healthcare data. The U.S. has a tradition of exceptional protection for healthcare data, surpassing that provided for data in other domains.²⁵⁴ Because the regulation is triggered by domain participants rather than data type, technology companies are not required to protect healthcare data to the same degree as healthcare providers.²⁵⁵ Often, domain-specific regulation has invited regulatory arbitrage.²⁵⁶ Recently, Apple CEO Tim Cook went so far as to criticize some of his technology company competitors as a “data industrial complex” engaged in surveillance.²⁵⁷

Our lack of long-term, imaginative policymaking combined with narrow, domain-specific legislation has created a fragmented, often incoherent regulatory environment. The optimal solution to the data protection issues raised by hybrid healthcare lies in the enactment of a U.S. analogue to the General Data Protection Regulation (GDPR), but the odds of that happening are low.²⁵⁸ Modern legislation or regulation tends to be of the band-aid variety lest markets should become jittery, while building modern legislative and regulatory structures designed to deal with contemporary problems seems anathema to our political processes. Even the expansive California Consumer Privacy Act of 2018, the single most advanced, general (i.e., not domain-specific) privacy law enacted in the U.S. in a generation,²⁵⁹ is embroiled in some debate as to whether it does or should apply to healthcare

²⁵³ See Amy D. Sorkin, *Whose Distressed Baby Is It?*, NEW YORKER (Feb. 11, 2014), <https://www.newyorker.com/news/amy-davidson/whose-distressed-baby-is-it>.

²⁵⁴ See generally Terry, *supra* note 179, at 168-73.

²⁵⁵ *Id.*

²⁵⁶ See generally *id.* at 173-84.

²⁵⁷ Natasha Lomas, *Apple's Tim Cook Makes Blistering Attack on the 'Data Industrial Complex,'* TECHCRUNCH (Oct. 24, 2018), <https://techcrunch.com/2018/10/24/apples-tim-cook-makes-blistering-attack-on-the-data-industrial-complex/>.

²⁵⁸ See General Data Protection Regulation (GDPR), Regulation 2016/679, 2016 O.J. (L119) 1 (EU). See generally David Meyer, *GDPR Attacks: First Google, Facebook, Now Activists Go After Apple, Amazon, LinkedIn*, ZDNET (May 29, 2018, 1:44 PM), <https://www.zdnet.com/article/gdpr-attacks-first-google-facebook-now-activists-go-after-apple-amazon-linkedin/>.

²⁵⁹ California Consumer Privacy Act of 2018, CAL. CIV. CODE §§ 1798.100 to 1798.198 (West 2018).

providers.²⁶⁰ Notwithstanding, other recent California legislation dealing with the cybersecurity of connected devices does appear to cover the healthcare “information of things” that are being embraced by hybrid healthcare providers.²⁶¹ Although there has been some current interest in federal data protection legislation,²⁶² it is difficult to imagine a current Congressional majority that would favor anything more rigorous than the relatively light regulatory model involving enforceable codes of conduct that was proposed by the Obama Administration in 2015.²⁶³

There is much to like about the companies behind hybrid healthcare. We are enthralled by their innovation and the optimism they bring into the space. For now, we may even trust them (or at least some of them). But the fundamental regulatory truth is that we lack a “Plan B” if they decide to be evil.²⁶⁴

CONCLUSION

As both Microsoft founder Bill Gates²⁶⁵ and President Donald Trump²⁶⁶ have remarked, healthcare is “complicated.” The *Economist* notes that “[i]t is worth remembering that the prospect of technology firms transforming health care has been

²⁶⁰ See S.B. No. 1125, 2017-2018 Leg., Reg. Sess. (Cal. 2018).

²⁶¹ S.B. No. 327, 2017-2018 Leg., Reg. Sess. (Cal. 2018).

²⁶² *Examining Safeguards for Consumer Data Privacy Before the Senate Committee on Commerce, Science, and Transportation*, 115th Cong. (2018) (announcement of the hearing available at <https://www.commerce.senate.gov/public/index.cfm/hearings?ID=2FF829A8-2172-44B8-BAF8-5E2062418F31>).

²⁶³ See Dan Tynan, *Silicon Valley Finally Pushes for Data Privacy Laws at Senate Hearing*, GUARDIAN (Sept. 26, 2018, 7:33 PM), <https://www.theguardian.com/technology/2018/sep/26/silicon-valley-senate-commerce-committee-data-privacy-regulation>; see also David McCabe, *Tech Companies Want Privacy Rules, But on Their Own Terms*, AXIOS (Sept. 26, 2018), <https://www.axios.com/tech-telecom-support-federal-privacy-legislation-but-not-gdpr-or-california-law-a8844666-7e1b-4bec-beae-30377e54e70e.html>. See generally Nicolas P. Terry, *Should Health Lawyers Pay Attention to the Administration’s Privacy Bill?*, HEALTH AFF.: HEALTH AFF. BLOG (Mar. 13, 2015), <https://www.healthaffairs.org/doi/10.1377/hblog20150313.045523/full/>.

²⁶⁴ Kate Conger, *Google Removes ‘Don’t Be Evil’ Clause from Its Code of Conduct*, GIZMODO (May 18, 2018, 5:31 PM), <https://gizmodo.com/google-removes-nearly-all-mentions-of-dont-be-evil-from-1826153393>.

²⁶⁵ Megan Thielking, *Bill Gates Is Glad Amazon Is Getting into Health Care—But Cautions It’s Complicated*, STAT (Apr. 30, 2018), <https://www.statnews.com/2018/04/30/bill-gates-amazon-dimon-buffet/>.

²⁶⁶ Kevin Liptak, *Trump: ‘Nobody Knew Health Care Could be So Complicated,’* CNN (Feb. 28, 2017, 4:10 AM), <https://www.cnn.com/2017/02/27/politics/trump-health-care-complicated/index.html>.

heralded in the past, only to disappoint.”²⁶⁷ Not surprisingly, commentators have greeted the new venture with equal amounts of skepticism²⁶⁸ and cautious optimism.²⁶⁹

The U.S. healthcare ecosystem and ecosystem are so complex that outsiders making even slight contact will face indeterminacies and barriers to entry that have their roots in both market and regulatory failures. As hybrid entities, particularly Amazon, enter the healthcare space and offer healthcare financing and healthcare services, they will also be sucked into healthcare’s regulatory morass.

Prime Health and the other hybrid insurgents will also experience pushback and even competition from incumbents. We will see more concentrations, primarily of the vertical type like the CVS-Aetna merger.²⁷⁰ Others may be combinations of insurers and providers,²⁷¹ while others yet may be combinations of insurers, PBMs, and health systems.²⁷² There will also be insurgents other than technology companies.²⁷³ However, in the case of the traditional healthcare entities, some skepticism is appropriate as to whether they will change their ways or whether they are merely building defensive positions by combining two different levels of

²⁶⁷ *Surgical Intervention*, *supra* note 18, at 59, 60.

²⁶⁸ See, e.g., Anna W. Mathews et al., *JP Morgan Plan Frets Some*, WALL ST. J., Feb. 4, 2018, at B2; Margot Sanger-Katz & Reed Abelson, *Can Amazon and Friends Handle Health Care? There’s Reason for Doubt*, N.Y. TIMES (Jan. 30, 2018), <https://www.nytimes.com/2018/01/30/upshot/can-amazon-and-friends-handle-health-care-theres-reason-for-doubt.html>; Spencer Soper & Caroline Chen, *Amazon Hasn’t Figured Out Drugstores Yet. But It Will Have To*, BLOOMBERG (Dec. 18, 2017, 7:00 AM), <https://www.bloomberg.com/news/articles/2017-12-18/amazon-hasn-t-figured-out-drug-stores-yet-but-it-will-have-to>.

²⁶⁹ See, e.g., David Blumenthal, *Can Three of America’s Most Innovative Business Minds Really Transform Health Care?*, HILL (Feb. 5, 2018, 7:30 AM), <http://thehill.com/opinion/healthcare/372074-can-three-of-americas-most-innovative-business-minds-really-transform>.

²⁷⁰ See generally PWC HEALTH RES. INST., *THE NEW HEALTH ECONOMY IN THE AGE OF DISRUPTION: NOVEL COMBINATIONS ATTEMPT TO REMAKE THE HEALTH SYSTEM* 2-5 (Apr. 2018), <https://www.pwc.com/us/en/health-industries/health-research-institute/pdf/pwc-hri-the-new-health-economy-in-the-age-of-disruption.pdf>.

²⁷¹ David Blumenthal, *Is M&A the Cure for a Failing Health Care System?*, HARV. BUS. REV. (Dec. 14, 2017), <https://hbr.org/2017/12/is-ma-the-cure-for-a-failing-health-care-system>.

²⁷² Abelson, *supra* note 235.

²⁷³ John Bowden, *Walmart in Early Talks to Buy Humana: Report*, HILL (Mar. 29 2018, 7:50 PM), <http://thehill.com/policy/healthcare/380944-walmart-in-early-acquisition-talks-with-humana-report>.

healthcare entity to increase customer lock-in. As the *New York Times* opined, “[they’re] taking a zebra and a zebra. . . . What they want to become is a unicorn.”²⁷⁴

Given its corporate provenance, Prime Health cannot, and indeed should not, take the path well-trodden. As the ACA limps along, we will not see attempts at major health reform any time soon. This is the time for those with extraordinary market power to step forward, to be audacious and to design a true functioning healthcare marketplace. If Prime Health fails, it will lend support to those who argue that consumer-directed and competitive solutions do not work. If it succeeds, Prime Health’s architects will be elevated to the health policy Parthenon to stand next to Otto von Bismarck and William Beveridge.

David Blumenthal’s qualified enthusiasm seems to strike the appropriate tone: “The excitement about these . . . bold new health care arrangements says as much about the desperation with our current health care systems as it does about the promise of the mergers themselves.”²⁷⁵ Hybrid healthcare, particularly Prime Health, may well be remembered as a final attempt to make employer-provided healthcare affordable and sustainable when the better path forward is arguably for employers to persuade the federal government that employment-based insurance is not the answer; the preferable solution is government-provided insurance. However, until that epitaph is written, it will be a fascinating journey to observe.

²⁷⁴ Reed Abelson, *Hospital Giants Vie for Patients in Effort to Fend Off New Rivals*, N.Y. TIMES (Dec. 18, 2017), <https://www.nytimes.com/2017/12/18/health/hospitals-mergers-patients.html>? (quoting Thomas Cassels, a consultant at the Advisory Board).

²⁷⁵ Blumenthal, *supra* note 271.

NEW YORK UNIVERSITY
JOURNAL OF INTELLECTUAL PROPERTY
AND ENTERTAINMENT LAW

VOLUME 8

FALL 2018

NUMBER 1

ANALYZING AALMUHAMMED V. LEE IN THE CONTEXT
OF ENTERTAINMENT INDUSTRY EMPLOYMENT

JENNIFER YAMIN*

In Aalmuhammed v. Lee, the Ninth Circuit established a test for determining whether an individual contributor to a work may qualify as a joint author. The test identified three main factors: 1) the author must superintend the work by exercising control; 2) the putative co-authors must make objective manifestations of a shared intent to be co-authors; and 3) the audience appeal of the work must turn on both contributions and the share of each in its success cannot be appraised. Applying these factors, the court concluded that authorship rights could not be granted to a film consultant hired to assist in the creation of the film Malcolm X despite his sizable contributions to the final product.

By analyzing the unique interplay between intellectual property rights and entertainment industry employment law, this Note explores the harmful effects of the Aalmuhammed test on employment and unions across all types of entertainment works. The Note argues that the Ninth Circuit's test hinders, rather than furthers Congress's explicit constitutional duty to promote the growth of the arts. In doing so, the test establishes a dangerous precedent that is incompatible with the modern operation of the entertainment industry and paradoxically is detrimental to the very people it intends to protect: creators. The Note concludes that the Aalmuhammed

* J.D. Candidate, New York University School of Law, 2019; B.A., Communication Studies, Northwestern University, 2016. The author would like to thank Professor Day Krolik and the JIPEL Notes Program participants: Jared Greenfield, Vincent Honrubia, Chloe Kaufman and James Yang.

test should no longer serve as the standard courts rely on to determine authorship rights and offers various proposals for reform.

INTRODUCTION	92
I. COPYRIGHT LANDSCAPE.....	94
A. <i>1976 Copyright Act</i>	94
B. <i>Joint Authorship in the Ninth Circuit: Aalmuhammed v. Lee</i>	95
II. RECENT INCONSISTENT AND AMBIGUOUS APPLICATIONS OF THE	
AUDIENCE APPEAL FACTOR IN ENTERTAINMENT	100
A. <i>Screenplays</i>	101
B. <i>Songs</i>	102
C. <i>Music Videos</i>	105
III. THE INTERPLAY BETWEEN INTELLECTUAL PROPERTY RIGHTS AND	
ENTERTAINMENT INDUSTRY EMPLOYMENT LAW	106
IV. WHY THE AALMUHAMMED TEST IS PROBLEMATIC FOR THE	
ENTERTAINMENT INDUSTRY	111
A. <i>The Aalmuhammed test is incompatible with the operation of the</i>	
<i>modern entertainment industry</i>	111
B. <i>The Aalmuhammed test negatively affects entertainment industry</i>	
<i>employment</i>	114
C. <i>The Aalmuhammed test has a negative effect on entertainment</i>	
<i>unions, which, in turn, further harms industry workers' employment</i>	
<i>opportunities</i>	117
V. PROPOSALS FOR REFORM	121
CONCLUSION	125

INTRODUCTION

It may take two to tango, but it takes far more than two to make a film, television show, or music video. It is show business, after all. The rolling credits at the end of Denzel Washington's motion picture *Fences* or an episode of the hit television show *Game of Thrones* exemplify the vast number and diverse array of participants involved in the creative process. From makeup artists to background dancers to even the boom mic operator, any set will undoubtedly be filled with various creative contributors. The credits may fail to accurately portray, however, the frequency at which individuals in the entertainment industry step outside of their

designated roles. A background dancer may suggest new choreography or a film consultant can rewrite entire scenes, partaking in the collaborative process in non-stereotypical ways and influencing the direction or even the outcome of the work. This fluidity has freed the entertainment industry from having to stick to the script, allowing the creative process to thrive in an unbound, collaborative environment.

While such flexibility has fueled Hollywood for decades, it has also led many entertainment industry participants to litigate claims over the authorship rights to various creations. Recent litigation has explored this exact issue: who is an author of the work for the purposes of copyright law? In this capacity, the law of intellectual property plays a formidable role in the entertainment industry because of its ability to either grant or deny authorship status to creators. *Aalmuhammed v. Lee*¹ exemplifies the ambiguity surrounding which contributors can walk away with authorship rights. In this case, a film consultant that presented evidence that he independently wrote at least two entire scenes, translated Arabic into English for subtitles, and participated in editing tried to gain copyright to the motion picture, but was unable to do so because he was not found to be a joint author to the work.² In coming to this decision, the Ninth Circuit articulated a three-factor test to determine whether an individual qualifies as a joint author to a work.³ However, as this note will show, this test has proven to be inconsistently applied throughout the courts, leading both to confusion and a lack of direction when providing guidelines for determining authorship.

In this Note, I argue that the joint authorship test established by the Ninth Circuit is problematic, particularly with respect to the entertainment industry. Part I addresses the current copyright law landscape regarding authorship following *Aalmuhammed*. Part II showcases the recent inconsistent and ambiguous applications of the *Aalmuhammed* test, specifically of the audience appeal factor, as applied to different types of entertainment content, including screenplays, songs, and music videos. Part III introduces the interplay between intellectual property rights and entertainment industry employment law. Part IV discusses how the *Aalmuhammed* test is inconsistent with the modern operation of the entertainment industry. It argues that the application of the test yields negative effects on entertainment industry employment and unions. Part V offers resolutions to this problem by discussing various proposals for reform. This Note concludes that the

¹ *Aalmuhammed v. Lee*, 202 F.3d 1227 (9th Cir. 2000).

² *Id.* at 1230.

³ *Id.* at 1234.

Ninth Circuit’s *Aalmuhammed* test is not only incompatible with the functions of the entertainment industry, but also detrimental to employment in the industry, further demonstrating the need for reform.

I.

COPYRIGHT LANDSCAPE

A. 1976 Copyright Act

The United States Constitution promulgates the Copyright Clause under Article I, Section 8, Clause 8. The Copyright Clause specifies that one of the powers of Congress is “to promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”⁴ Notably, included within this delegation of power is the specification that Congress is empowered to provide copyright protection to “authors.”⁵

The prevailing statute for copyright law in the United States is the 1976 Copyright Act, (“The Act”).⁶ Oddly, the words “author” and “authorship” have yet to be defined, despite their presence in the Copyright Clause and importance to the statutory scheme. Joint works, however, are defined as “a work prepared by two or more authors with the intention that their contributions be merged into inseparable or interdependent parts of a unitary whole.”⁷ Because “authorship” is left undefined, the legislative history surrounding the definition and inclusion of “joint work” is often used to shed light on the congressional intent behind the term. The House Report describes that the “touchstone” of the joint work question “is the intention, at the time the writing is done, that the parts be absorbed or combined into an integrated unit, although the parts themselves may be either ‘inseparable’ (as the case of a novel or painting) or ‘interdependent’ (as in the case of a motion picture, opera, or the words and music of a song).”⁸

The Act lists the different types of works of which authors may claim authorship. Works of authorship include the following categories: literary works,

⁴ U.S. CONST. art. I, § 8, cl. 8.

⁵ *Id.*

⁶ *See generally*, 17 U.S.C. §§ 101 et seq. (2012).

⁷ *Id.* § 101.

⁸ H.R. REP. NO. 94-1476, at 120 (1976), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5736.

musical works (including any accompanying words), dramatic works (including any accompanying music), pantomimes and choreographic works, pictorial, graphic and sculptural works, motion pictures and other audiovisual works, sound recordings, and architectural works.⁹ Under section 101, each of these categories is individually defined.¹⁰ Motion pictures, for example, are defined as “audiovisual works consisting of a series of related images which, when shown in succession, impart an impression of motion, together with accompanying sounds, if any.”¹¹

B. Joint Authorship in the Ninth Circuit: Aalmuhammed v. Lee

Beginning in 1991, Warner Brothers along with Spike Lee and his production companies, entered into a contract to make the film *Malcom X*, based on the book *The Autobiography of Malcom X*.¹² Lee served as the director, co-writer, and co-producer of the film. The film’s leading actor, Denzel Washington, played Malcom X. Washington sought out Jefri Aalmuhammed to assist with the role specifically because Aalmuhammed had previously made a film about Malcom X, and was known to be well-informed and knowledgeable about the leader’s life.¹³

Although Aalmuhammed did not have a contract with Warner Brothers or the director, he still wanted to be credited as the co-writer of the film. In his complaint, he cited evidence showing that his involvement with the film was substantive.¹⁴ Aalmuhammed’s evidence revealed he had reviewed the shooting script, suggested extensive script revisions, directed Washington and other actors, “created at least two entire scenes with new characters, translated Arabic into English subtitles, supplied his own voice for voice-overs, selected the proper prayers and religious practices for the characters, and edited parts of the movie during post production.”¹⁵

Aalmuhammed subsequently sought a copyright with the U.S. Copyright Office. The Office issued him a “Certificate of Registration,” but noted there were conflicting previous registrations of the film. On November 17, 1995, he filed suit

⁹ 17 U.S.C. § 102.

¹⁰ *Id.* § 101.

¹¹ *Id.*

¹² *Aalmuhammed v. Lee*, 202 F.3d 1227, 1229 (9th Cir. 2000).

¹³ *Id.*

¹⁴ *Id.* at 1230.

¹⁵ *Id.*

against Spike Lee, Lee's production companies, and Warner Brothers alleging a variety of claims: breach of implied contract, quantum meruit, unjust enrichment, and federal and state unfair competition claims. Lee sought declaratory relief and an accounting under the Copyright Act.¹⁶ Most of these claims were dismissed under a motion to dismiss or on summary judgment.¹⁷ In February 2000, the Ninth Circuit heard argument in the case. The court heard the copyright claim, the quantum meruit claim, and the unfair competition claim.¹⁸

The court first addressed Aalmuhammed's joint authorship claim. To determine whether the motion picture qualified as a joint work, the court looked to the definition and language of "joint work" in the Act. It concluded that for a work to qualify as a joint work it must: 1) be a copyrightable work; 2) by two or more "authors;" 3) the authors must intend their contributions to be merged into inseparable or interdependent parts of a unitary whole; and 4) each author is required "to make an independently copyrightable contribution" to the disputed work.¹⁹

The court found that Aalmuhammed had established a genuine issue of fact for three of the four elements of a "joint work." Specifically, the court noted that *Malcolm X* was a copyrightable work and intended to be a unitary whole. Aalmuhammed's evidence that he "rewrote several specific passages of dialogue that appeared in the film" and "wrote scenes relating to Malcolm X's Hajj pilgrimage that were enacted in the movie" was credited by the court as a copyrightable contribution.²⁰ Further, all parties involved had the intent that Aalmuhammed's contributions would be merged into interdependent parts of the movie as a unitary whole.²¹ Despite the fact that Aalmuhammed readily met these standards, the court ultimately held he did not qualify as an "author" for the purposes of the Act, and thus found that Aalmuhammed was not one of at least two authors required to establish a "joint work."²²

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ *Id.* at 1231.

²⁰ *Id.* at 1231-32.

²¹ *Id.* at 1232.

²² *Id.* at 1236.

The court devoted a significant portion of its decision to the joint authorship question. After noting that “authorship is not the same thing as making a valuable and copyrightable contribution,” the court analyzed the traditional uses and applications of the word “author,” concluding that the word “author,” as used in this context, refers to the “activity of one person sitting at a desk with a pen and writing something for publication.”²³ The idea and definition of “author,” the Ninth Circuit notes, is “relatively easy to apply to a novel” and “to two people who work together in a fairly traditional pen-and-ink way.”²⁴ The relatively easy application ends, however, when “the number of contributors grows and the work itself becomes less the product of one or two individuals who create it without much help.”²⁵ Reiterating the traditional bases of the word, the court added, “the word is traditionally used to mean the originator or the person who causes something to come into being, or even the first cause, as when Chaucer refers to the ‘Author of Nature.’”²⁶ Lastly, the court cited the Gilbert and Sullivan song, “I Am the Very Model of a Modern Major General,” to show that because Gilbert’s words and Sullivan’s tune are inseparable, the audience can know that both were the creative originators or authors.²⁷ The court then listed several theories that could help establish the authorship of a film. For example, they noted the author may be “the producer who raises the money.”²⁸ Or, under Eisenstein’s theory and the “auteur” theory, the author may be the editor or the director, respectively.²⁹ Lastly, they stated that “traditionally, by analogy to books, the author was regarded as the person who writes the screenplay, but often a movie reflects the work of many screenwriters.”³⁰

Turning to case law to shed further light on the discussion of who an author may be, the court cited the Supreme Court’s decision in *Burrow-Giles Lithographic Co. v. Sarony*.³¹ In *Burrow-Giles*, the Court expanded the concept of authorship to

²³ *Id.* at 1232.

²⁴ *Id.*

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Id.*

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Id.*

³¹ *Burrow-Giles Lithographic Co. v. Sarony*, 111 U.S. 53, 54 (1884).

include a photographer who exercised a sufficient degree of control over the subject of his photograph. The Court's support for this decision included various English authorities and the Founding Fathers of the Constitution.³² Ultimately, the Ninth Circuit concluded that an "author" is "the person to whom the work owes its origin and who superintended the whole work, the 'master mind.'"³³ Applying this definition to a film, the *Aalmuhammed* court finds that an author is limited "to someone at the top of the screen credits, sometimes the producer, sometimes the director, possibly the star, or the screenwriter - someone who has artistic control."³⁴ And, lastly, the *Aalmuhammed* court relied on *Thomson v. Larson*,³⁵ a Second Circuit decision in which it was affirmed that Larson, a playwright, did not intend joint-authorship with Thomson, the dramaturg for the Broadway musical *Rent*. The absence of both decision-making authority and billing as a co-author led the Second Circuit to find that the work was not joint.³⁶

Extracting from *Burrow-Giles*, *Thomson*, and the Gilbert and Sullivan example, the Ninth Circuit compiled a list of three factors that would constitute the criteria to establish who should be considered an author for the purposes of a joint work (assuming there is no contract stating otherwise): 1) the author must superintend the work by exercising control; 2) the putative co-authors must make objective manifestations of a shared intent to be co-authors; and 3) the audience appeal of the work must turn on both contributions and the share of each in its success cannot be appraised.³⁷ With respect to the first factor, the court specified that "this will likely be a person 'who has actually formed the picture by putting the persons in position, and arrang[ed] the place where the people are to be – the man who is the effective cause of that,'" or "the inventive or master mind" who "creates, or gives effect to the idea."³⁸ The second factor requires the putative co-authors make objective manifestations of a shared intent to be co-authors. For example, listing both "Gilbert and Sullivan" as the authors of the song would satisfy this requirement. Objective manifestation—as opposed to subjective manifestation—is required

³² *Id.* at 57-59.

³³ *Aalmuhammed*, 202 F.3d at 1233.

³⁴ *Id.*

³⁵ *Thomson v. Larson*, 147 F.3d 195, 207 (2d Cir. 1998).

³⁶ *Id.*

³⁷ *Aalmuhammed*, 202 F.3d at 1234.

³⁸ *Id.*

because a fraudulent outcome might result if co-authors were to conceal their true intentions regarding a work's authorship.³⁹ For example, an author could communicate to the other "author" that she intended to be co-authors to the work, only to register for a copyright in her own individual name. The court expresses concern over mutual intent under a subjective intent standard as becoming "an instrument of fraud."⁴⁰ And under the third factor, the audience appeal of the work must turn on both contributions and "the share of each in its success cannot be appraised."⁴¹ Notably, the court specified that control will be the most important factor in many cases. They also qualified that the factors "cannot be reduced to a rigid formula, because the creative relationships to which they apply vary too much."⁴²

In applying these factors, the court first found that Aalmuhammed did not superintend the work, and instead, Warner Brothers and Lee controlled it. Comparing Aalmuhammed to the dramaturg in *Thomson*, they found that Aalmuhammed may have made useful recommendations, but the film may not have benefited from them unless Lee chose to accept them.⁴³ Secondly, they concluded that there were no objective manifestations of intent to be co-authors among any of the parties involved.⁴⁴ The court did not address the third factor.

The court grounded its decision to withhold authorship from Aalmuhammed in policy concerns. According to the court, granting authorship to the plaintiff in this scenario would frustrate the constitutional goal to "promote the progress of Science and useful Arts." The court feared that the threat of losing sole ownership of the work itself may incentivize authors to insulate themselves throughout the creative process.⁴⁵ As a result, the overall decrease in collaboration could thereby impoverish the arts in terms of both quantity and quality.

Moreover, adopting Aalmuhammed's broader definition of joint authorship would allow many other contributors to deprive the sole authors of proper title.

³⁹ *Id.*

⁴⁰ *Id.*

⁴¹ *Id.*

⁴² *Id.* at 1235.

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ *Id.*

Specifically, “research assistants, editors, and former spouses, lovers and friends would endanger authors who talked with people about what they were doing, if creative copyrightable contribution were all that authorship required.”⁴⁶ From the court’s point of view, the fear of being stripped of absolute title thus becomes even more prevalent, and consequently, the urge to resist collaboration as well.

II.

RECENT INCONSISTENT AND AMBIGUOUS APPLICATIONS OF THE AUDIENCE APPEAL FACTOR IN ENTERTAINMENT

The judicial system is no stranger to the issue of joint authorship in the entertainment industry. In applying the *Aalmuhammed* test, however, lower courts have reached inconsistent results when considering various kinds of entertainment works, such as screenplays,⁴⁷ songs,⁴⁸ and music videos.⁴⁹ In dealing with frequent litigation surrounding the joint authorship issue, courts have turned to the Ninth Circuit’s *Aalmuhammed* decision for guidance. The third factor of the *Aalmuhammed* joint work analysis, the audience appeal factor, poses particular

⁴⁶ *Id.* at 1235-36.

⁴⁷ *See, e.g.*, Complaint at 1, Horror, Inc. v. Victor Miller, No. 3:16-cv-01442 (D. Conn. Aug. 24, 2016) (Victor Miller, the author of the screenplay *Friday the 13th*, issued termination notices to the film’s producers to notify them that he was reclaiming his copyright in the original screenplay); Ron Dicker, *Filmmaker Says ‘Stranger Things’ Creators Stole His Ideas in New LawsUIT*, HUFFINGTON POST (Apr. 4, 2018, 10:39 AM), https://www.huffingtonpost.com/entry/stranger-things-suit-duffer-brothers_us_5ac4b7b7e4b093a1eb20d34c (Charlie Kessler filed suit against Matt and Ross Duffer alleging they stole his ideas for a sci-fi series called “Montauk” in their popular Netflix series “Stranger Things”).

⁴⁸ *See, e.g.*, Complaint at 4, Brittle v. Time Warner, Inc., No. 3:16-cv-00908-JAG (E.D. Va. Nov. 11, 2016) (Gerald Brittle sued Time Warner and other entertainment company defendants over the exclusive motion picture rights to the film *The Conjuring* based on the book he wrote called *The Demonologist*).

⁴⁹ Complaint, Frank Ocean v. Om’Mas Keith, No. 2:18-cv-01383 (C.D. Cal. Feb. 20, 2018) (Musical artist Frank Ocean brought a declaratory action of copyright non-ownership against music producer Om’Mas Keith, who claimed that he had co-written musical compositions with Ocean for the singer’s album titled *Blonde*).

issues with respect to entertainment works in that it is applied inconsistently and ambiguously to screenplays, songs, and music videos.⁵⁰

A. Screenplays

In *Richlin v. MGM*, for example, the same court that crafted the audience appeal factor admitted that “it is nearly impossible to determine how much of [a] Motion Picture’s audience appeal and success can be attributed to the [Screenplay].”⁵¹ The Ninth Circuit suggested that a film’s success might be attributed to a number of factors other than the screenplay itself, such as the actor’s “legendary comedic performance,” the composer’s “memorable score,” or the director’s “award-winning direction.”⁵² Despite acknowledging that there were various creative contributions, none of which could have independently and solely drawn in the audience, the court still found that the audience appeal factor favored the screenwriter plaintiffs seeking copyright of the film, because without their original screenplay, the motion picture would not exist. Ultimately, the analysis surrounding the audience appeal factor proved moot, as the court found that the first two factors weighed heavily in favor of the defendant, Metro-Goldwyn-Mayer Pictures, Inc., thereby outweighing the third factor entirely.⁵³

The treatment of the third factor in *Richlin* is problematic in three ways. First, many motion pictures stem from or are a derivative of a screenplay or book. Without the original writing, the motion picture, in many instances, would cease to exist. The conclusion that the audience appeal and success of a work can be attributed to the screenplay simply because the motion picture was derived from it represents an analytical gap in that it forecloses the recognition of any other valuable creative contributions. By limiting its reasoning to this logic, the Ninth Circuit set a standard in which the audience appeal factor of the *Aalmuhammed* joint work analysis may favor the party who contributed to the original work and seeks rights as a joint author. This approach circumvents the third factor analysis entirely, where the court would ordinarily need to compartmentalize the various creative contributions, such

⁵⁰ *Aalmuhammed*, 202 F.3d at 1234. (“[T]he audience appeal of the work must turn on both contributions and the share of each in its success cannot be appraised.”) (internal quotation marks omitted).

⁵¹ *Richlin v. Metro-Goldwyn-Mayer Pictures, Inc.*, 531 F.3d 962, 970 (9th Cir. 2008).

⁵² *Id.*

⁵³ *Id.*

as those of the writers, actors, composers, and directors, to determine which are responsible for the majority of the audience appeal.

Second, had the court performed a proper audience appeal analysis, they would have been met with a burdensome task that could result in divergent results given the subjective interpretations of motion pictures and what factors contribute to their success. The Ninth Circuit, acknowledging that this analysis would be “nearly impossible,” instead decided that concluding one could not exist without the other is sufficient.⁵⁴

Third, *Richlin* represents a case in which the first two factors weighed in favor of the defendants’ claim that the parties were not joint authors. The court left no guidance for a case in which the first two factors weigh in favor of the plaintiff seeking to establish joint authorship. In such a situation, it remains unclear if the third factor would be determinative or continue to carry little or no weight at all. The court also failed to explain whether a more thorough analysis, like the one the Ninth Circuit avoided, should take place. And although the Ninth Circuit qualified in *Aalmuhammed* that the factors could not be boiled down to an exact formula,⁵⁵ the court’s reasoning in *Richlin* leaves a great deal of ambiguity for litigants and courts to confront in future disputes.

B. Songs

There have been inconsistent ways of analyzing the audience appeal factor in the context of songs as well. For example, in *Eli Brown, III v. Michael C. Flowers*,⁵⁶ the plaintiff and defendant had formed a partnership called Hectic Records. Flowers and Brown recorded hundreds of demo R&B songs together, where Brown, in his role as sound engineer and producer, “added riffs and beats,” thus “establishing tempo, ambiance, echo, reverberation, treble, bass, frequency, gain, bandwidth, distortion, and equalizing.”⁵⁷ Flowers, a songwriter, then traveled to New York and New Jersey to market the songs he and Brown recorded, including “I Wish,” a track that Brown had engineered and produced. The song was picked up by singer Carl Thomas, who re-recorded the song and released it on an album that eventually went platinum. The partnership later dissolved, and, according to Brown, Flowers

⁵⁴ *Id.*

⁵⁵ *Aalmuhammed v. Lee*, 202 F.3d 1227, 1235 (9th Cir. 2000).

⁵⁶ *Brown v. Flowers*, 196 F. App’x 178, 184 (4th Cir. 2006).

⁵⁷ *Id.*

“applied for and received copyright registrations for these recordings” and “subsequently licensed these recordings to other artists, who, in turn, made re-recordings.”⁵⁸ Brown then filed suit against Flowers under the Copyright Act of 1976, alleging that the recordings were joint works and he thus had copyright in them as well.⁵⁹ The Fourth Circuit ultimately affirmed the district court’s dismissal of Brown’s federal copyright claim, finding he did not meet the requisite author requirement.⁶⁰

In an unpublished concurrence and dissent in part, Judge Gregory wrote a separate opinion in which he applied the *Aalmuhammed* three-factor test and reached a result that differed from the majority. He found that “because Brown allege[d] that he served as the engineer and producer of the master recordings, [he] conclude[d] that [Brown] had significant decision making authority over the substance and form of the master recordings.”⁶¹ Second, he found that Brown had sufficiently alleged that the parties made objective manifestations of their intent to be co-authors because of Brown’s allegations “that the parties collaborated over a period of four years in recording demo R&B songs under their Hectic Records partnership label and in attempting to distribute those recordings to third parties under that label.”⁶² Lastly, the third factor was met “because the audience appeal of R&B songs is attributable in large measure to their underlying riffs and beats, which, invariably, are incorporated into those songs by recording engineers and producers.”⁶³

Although he found joint authorship for Brown, Judge Gregory extracted from the ambiguity surrounding the *Aalmuhammed* audience appeal factor in ways that other courts may not. For example, despite attempting to apply an objective approach to the analysis, Judge Gregory generalized and promulgated stereotypes about the specific type of work at issue. In doing so, his analysis ran counter to the purpose of the audience appeal factor. His conclusion that the appeal of R&B songs is attributable in large measure to the songs’ “underlying riffs and beats,” neglects the subjective analysis owed to creative works of music. For example, the song at issue could depart from the expectation or standard that R&B songs are successful because

⁵⁸ *Id.*

⁵⁹ *Id.* at 184.

⁶⁰ *Id.* at 181

⁶¹ *Id.* at 191 (Gregory, J., concurring in part and dissenting in part).

⁶² *Id.*

⁶³ *Id.*

of those specific features. Judge Gregory does not constitute nor represent the “audience” and their views of the song. The vocalist on the song, for example, could be the sole reason the audience is drawn to the piece. Thus, while Judge Gregory did recognize Brown’s right, he did so in a way that did not provide for sufficient flexibility in the analysis that such creative works of entertainment are owed.

In *Ford v. Ray*,⁶⁴ a claim for joint authorship was dismissed based on the *Aalmuhammed* test. In this case, Ford, the plaintiff, collaborated with Ray, the defendant, on an album where Ford “independently created a handful of drum tracks, called ‘beats,’ that he thought would make a good foundation for hip hop songs” as well as “provided ‘scratching’ for the chorus of the song and a solo.”⁶⁵ Ray’s role was to choose which of the beats would be used for Sir-Mix-a-Lot’s Grammy award-winning song, “Baby Got Back.” Ray, without Ford’s knowledge, filed copyright registrations for some of the songs they worked on together, identifying himself as the sole author.⁶⁶ Ford subsequently filed suit alleging the works were “joint works” and that he was the co-author.

In employing the *Aalmuhammed* three-factor test, the United States District Court for the Western District of Washington found that the first two factors – that the author must superintend the work by exercising control and the putative co-authors must make objective manifestations of a shared intent to be co-authors – weighed in favor of Ray, and thus concluded that Ford was not a co-author.⁶⁷ In acknowledging the audience appeal factor, the court stated that Ford “fail[ed] to allege facts from which one could conclude that his contributions account for the appeal of ‘Baby Got Back.’”⁶⁸ The court sought more information such as “how much of the music was [Ford’s] creation and how much was edited, programmed, and altered by [Ray].”⁶⁹ They found the fact that Ray used one of Ford’s “drum tracks ‘as the basis for the song’ and incorporated [Ford’s] scratching” insufficient.⁷⁰ Relying on the complaint, the court concluded that Ford had made no contribution

⁶⁴ *Ford v. Ray*, 130 F. Supp. 3d 1358, 1359 (W.D. Wash. 2015).

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ *Id.* at 1364.

⁶⁸ *Id.* at 1363.

⁶⁹ *Id.* at 1364.

⁷⁰ *Id.* at 1363-64.

to the lyrics nor did he have any control over the music after handing it over to Ray.⁷¹ In coming to this conclusion, the court acknowledged that the audience appeal factor remains “something of an unknown” to the analysis and granted the dismissal based solely on the first two factors.⁷²

Brown and Ford are thus paradigmatic of how the *Aalmuhammed* test, particularly the audience appeal factor, has been interpreted, analyzed, and implemented inconsistently when applied to songs.

C. Music Videos

Litigation surrounding music video joint authorship issues further exemplifies the ambiguous application of the audience appeal factor with respect to various kinds of entertainment works. In *Morrill v. The Smashing Pumpkins*,⁷³ Morrill was a member of the band The Marked. The band produced a music video titled “Video Marked” which had been shown at various clubs where The Marked performed in order to promote their group.⁷⁴ Defendant Corgan, one of the members of The Marked and the sole permanent member of The Smashing Pumpkins, was a member of The Marked at the time the music video was made, but later left the group. Years later, defendants Corgan, The Smashing Pumpkins, and Virgin Records America released a video titled “Vieuphoria” which featured short clips of images from “Video Marked.”⁷⁵ Morrill brought suit against the defendants, alleging he was the sole owner of the copyright for the music video. The United States District Court for the Central District of California found that the first two factors favored a finding of a joint work.⁷⁶ With respect to the audience appeal factor, the court concluded that the audience appeal can be attributed to both parties because the appeal of “Video Marked” “was most likely based on the audience’s ability to view images of a younger Corgan. This is suggested by the packaging for ‘Vieuphoria,’ which advertises super secret, super special extra stuff shot by the band.”⁷⁷ The court focused on Corgan’s appearance as fulfilling the audience appeal requirement which

⁷¹ *Id.* at 1364.

⁷² *Id.*

⁷³ *Morrill v. Smashing Pumpkins*, 157 F. Supp. 2d 1120 (C.D. Cal. 2001).

⁷⁴ *Id.* at 1121.

⁷⁵ *Id.*

⁷⁶ *Id.* at 1126.

⁷⁷ *Id.* at 1125 (internal quotation marks omitted).

ostensibly “rests both on the video’s visual aspects and on the composition and performance of the music.”⁷⁸

In *Eagle Rock Entertainment, Inc. v. Coming Home Productions, Inc.*,⁷⁹ the Central District of California faced an ownership dispute over “Guns, God and Government,” a live concert video album filmed during shock rock musician Marilyn Manson’s controversial 1999-2000 world tour.⁸⁰ Both parties claimed to have produced the video by contributing to the editing and production of it. The court found the parties to be joint authors by analyzing the audience appeal factor and relying on *Morrill*. Unlike in *Morrill*, however, the court did not specifically address which aspects contributed to the visual appeal or the composition and performance of the music. Thus, the court seemed to employ the same standard to measure audience appeal differently in that it specifically sought out and emphasized an extra element in one music video, but did not require or address it in the other.

III.

THE INTERPLAY BETWEEN INTELLECTUAL PROPERTY RIGHTS AND ENTERTAINMENT INDUSTRY EMPLOYMENT LAW

The *Aalmuhammed* test proves significant even outside of the courtroom, where its application has a direct impact on the livelihoods of those who participate in the entertainment industry. Recent examples in pop culture reflect the close link between intellectual property rights and employment. Take Steven Jan Vander Ark, for example, the Harry Potter fanatic who sought to publish an encyclopedia⁸¹ featuring the many characters, settings, and overall magic of J.K. Rowling’s popular book series.⁸² Rowling and Warner Brothers Entertainment sued Vander Ark seeking to enjoin the publication of the book alleging it infringed their copyrights given the

⁷⁸ *Id.*

⁷⁹ *Eagle Rock Entm't, Inc. v. Coming Home Prods., Inc.*, No. CV 03-571 FMC(AJWx), 2004 WL 5642002, at *1 (C.D. Cal. Sept. 1, 2004).

⁸⁰ *Id.* at *3.

⁸¹ See generally, *Harry Potter Wish List*, <http://hpwishlist.warnerbros.com/> (last visited Nov. 11, 2018) (providing an example of an extrinsic encyclopedia and fan-site dedicated to J.K. Rowling’s book series).

⁸² John Eligon, *Rowling Wins Lawsuit Against Potter Lexicon*, N.Y. TIMES, Sept. 8, 2008, at B3.

substantially similar, if not equivalent, nature of the content.⁸³ While Rowling walked away victorious, Vander Ark was left sobbing on the stand stating that Rowling's public denunciation of his book "had ostracized him from the 'Harry Potter community.'"⁸⁴ Why was Rowling, a prominent, successful author of a world-famous series, so keen on stopping one author—or more properly labeled, a fan—from producing a Harry Potter encyclopedia? And why was Vander Ark left so concerned about his reputation among other Harry Potter fans?

Intellectual property rights hold so much force in the realm of entertainment employment that even renowned authors like J.K. Rowling are adamant about protecting them. As of November 2018, the U.S. media and entertainment industry is a \$735 billion market, representing a third of the global industry.⁸⁵ In 2017, the arts, entertainment, and recreation industry employed 2,370,160 people.⁸⁶ Duncan Crabtree-Ireland notes that "[a]lmost all workers in the entertainment industry . . . are dependent on intellectual property law (and particularly copyright) for their livelihoods."⁸⁷ Overall, the interplay between intellectual property and employment is a unique one in entertainment, where intellectual property rights serve as a policing mechanism to ensure that parties are rewarded for original works of authorship by establishing standards and thresholds for artists to qualify for the benefits of employment.

Despite the significant effect of intellectual property rights on employment opportunities, practices within the entertainment industry often make it difficult to determine the appropriate allocation of rights. First, the industry is inherently filled with intangible content that without proper regulation could be subject to taking.⁸⁸ Furthermore, technological developments have augmented the means through which

⁸³ Warner Bros. Entm't Inc. v. RDR Books, 575 F. Supp. 2d 513 (S.D.N.Y. 2008).

⁸⁴ Eligon, *supra* note 82.

⁸⁵ *Media and Entertainment Spotlight: The Media and Entertainment Industry in the United States*, SELECTUSA, <https://www.selectusa.gov/media-entertainment-industry-united-states> (last visited Nov. 11, 2018).

⁸⁶ *May 2017 National Industry-Specific Occupational Employment and Wage Estimates, Sector 71: Arts, Entertainment, and Recreation*, U.S. DEP'T OF LAB., https://www.bls.gov/oes/current/naics2_71.htm.

⁸⁷ Duncan Crabtree-Ireland, *Labor Law in the Entertainment Industry Supplemental Payments, Intellectual Property Rights, and the Role of Unions*, 31 ENT. & SPORTS L. 4, 4–5 (2014).

⁸⁸ *Id.*

audiences consume content, and facilitated the dissemination of entertainment content throughout the consumer marketplace. Cynthia Baron explains this phenomenon, noting how the “increasing convergence of film and new media ‘has simultaneously increased the availability of film and turned it into part of a data stream where images become information that is simply passing through.’”⁸⁹ In this capacity, “film has also become part of the flow,” blurring and stretching the origins of the content farther away from the original artist or author.⁹⁰ As a result, it becomes a challenge to pinpoint the original source or author of a work, leaving the claimant to intellectual property rights with a daunting task. Justice Scalia voiced similar concerns in *Dastar Corporation v. Twentieth Century Fox Film Corporation*,⁹¹ stating “without a copyrighted work as the basepoint, the word ‘origin’ has no discernable limits” and “figuring out who is in the line of ‘origin’” would prove difficult.⁹² The high transaction costs for identifying and crediting sources may serve to decrease, or even paralyze, creative cultural production.

Second, the length and pace of projects in entertainment production make it difficult to monitor the contributions and rights of those who work on entertainment projects. Employment in Hollywood’s film industry, in particular, is project-based so that employers can “quickly assemble personnel with highly specialized skills for a short period of time. Producers have no incentive to offer long-term contracts because informationally complex jobs are difficult to monitor.”⁹³ In hiring for short-term projects:

[T]he entertainment industries exist on ideas turned into deals. When an idea is ‘hot,’ immediate action is desired. Parties rush to agree, and, in the process, desire at times outraces common sense. The ‘deal,’ as it turns out, is strictly verbal, or there are scattered memos but no single, final, formal written agreement. If the production proceeds as

⁸⁹ Cynthia Baron, *The Modern Entertainment Marketplace, 2000-Present*, in ACTING 144 (Claudia Springer & Julie Levinson eds., 2015) (quoting author Stephen Keane).

⁹⁰ *Id.*

⁹¹ *Dastar Corp. v. Twentieth Century Fox Film Corp.*, 539 U.S. 23 (2003).

⁹² *Id.* at 35.

⁹³ William T. Bielby & Denise D. Bielby, *Organizational Mediation of Project-Based Labor Markets: Talent Agencies and the Careers of Screenwriters*, 64 AM. SOC. REV. 64, 66 (1999).

envisioned . . . [t]here is no problem because the idea becomes a deal that produces a success, and everyone is happy.⁹⁴

As a result of the quick pace of deal-making, oral contracts have replaced written agreements as the primary means of memorializing deals. The industry reliance on oral contracts—often referred to as the “handshake deal”⁹⁵—reflects the priority of completing projects on time. This priority, in turn, comes at the expense of fleshing out the full details of an employment agreement, which can suppress workers’ efforts to obtain credit for their contribution. If two parties orally and mutually agree to certain terms of a relationship or a course of conduct, the agreement becomes enforceable regardless of whether or not a written agreement was signed.⁹⁶ *Main Line Pictures, Inc. v. Basinger*,⁹⁷ one of the pivotal cases involving oral contracts in Hollywood, epitomizes the ubiquity and enforceability of oral contracts in the film industry.

In 1990, Main Line Pictures asked actress Kim Basinger to star in the movie “Boxing Helena.” On several occasions, Basinger orally agreed to star in the film. A year and a half later, Main Line learned through rumors that Basinger no longer intended to act in the film as she had agreed to do. Main Line subsequently filed a complaint alleging breach of an oral and written contract.⁹⁸ The jury concluded that Basinger had breached her oral contract with Main Line and awarded them damages.⁹⁹ On appeal, the California Court of Appeals took note of and gave credence to the practice of oral contracts in entertainment, explaining “because timing is critical, film industry contracts are frequently oral agreements based on unsigned ‘deal memos.’”¹⁰⁰ Even though this case was later reversed on a

⁹⁴ Gary M. McLaughlin, *Oral Contracts in the Entertainment Industry*, 1 VA. SPORTS & ENT. L.J. 101, 119 (2001).

⁹⁵ *Id.* at 120.

⁹⁶ See Jay M. Spillane, *Lawsuits Over "Handshake Deals" Are As Old As the Entertainment Industry (and Can Be Easily Avoided)*, 11 ENT. & SPORTS L. 15, 16 (1993).

⁹⁷ *Main Line Pictures, Inc. v. Basinger*, No. B077509, 1994 WL 814244, at *1 (Cal. Ct. App. Sept. 22, 1994).

⁹⁸ *Id.* at *4.

⁹⁹ *Id.* at *5.

¹⁰⁰ *Id.* at *2.

technicality and settled, it reiterates the control and influence of oral contracts in the industry.

Another common practice unique to the film industry is what Mihaela Mihailova has called “invisible labor,” where many contributors or collaborators to a film often go unrecognized.¹⁰¹ She notes that “Hollywood labor history is marred by a host of such obfuscations,”¹⁰² pointing to unrecognized contributions in Darren Aronofsky’s film *Black Swan* as exemplifying such an omission of credit. In *Black Swan*, actress Natalie Portman was largely recognized as the star of the film, displaying professional ballet movements on screen. In reality, however, ballet dancer Sarah Lane was the one who performed most of the challenging dance scenes. With the help of post-production technology, Lane’s face was simply replaced with Portman’s. Neither Lane nor the animation team were credited in the marketing or promotional materials, and instead Portman walked away with the accolades, winning an Academy Award.¹⁰³ Mihailova sums up this practice as a “policy of deliberately suppressing any public acknowledgment of the invisible labor that facilitates the star’s performance.”¹⁰⁴

Entertainment industry employees are heavily reliant on the recognition of intellectual property rights for employment opportunities. Industry practices, however, make it difficult to determine who can claim those rights. As will be discussed further, authorship can directly affect the salaries, royalties, and overall benefits associated with recognition. In addition to the numerous barriers these participants have to overcome, such as the implications of intangible property, the dominance of oral contracts, or the “invisible labor” theory, the *Aalmuhammed* test only exacerbates the difficulties creators in entertainment must face.

¹⁰¹ See Mihaela Mihailova, *Collaboration Without Representation: Labor Issues in Motion and Performance Capture*, 11 ANIMATION: AN INTERDISCIPLINARY J. 40, 46 (2016).

¹⁰² *Id.*

¹⁰³ Dean Goodman & Edwin Chan, *Natalie Portman Leaps to Oscar for ‘Black Swan’*, REUTERS.COM (Feb. 27, 2011, 11:20PM), <https://www.reuters.com/article/us-oscars-bestactress-idUSTRE71R19920110228>.

¹⁰⁴ Mihailova *supra* note 101, at 46.

IV.

WHY THE *AALMUHAMMED* TEST IS PROBLEMATIC FOR THE ENTERTAINMENT INDUSTRY

A. The Aalmuhammed test is incompatible with the operation of the modern Entertainment Industry

The creative process is anything but streamlined and Hollywood's productions are no exception. While certain structures and processes exist as guidelines, deviation occurs far more often than in other industries. Many factors inherent to the filmmaking process lead to situations in which contributors take on roles outside of their designated responsibilities, such that even in the case of a formal written contract, departures from official roles are frequently made. Thus, while the credits to a film may describe the job titles that participants in the creative process held, they should by no means convey the message that the producer, for example, stuck solely to the responsibilities with which a producer is conventionally associated. The overall creative process behind filmmaking involves many people who played a role, small or large, in the creation of the film.

The three-factor test articulated in *Aalmuhammed* to determine joint authorship, however, does not adhere to the highly collaborative nature of the filmmaking process, nor to the widespread custom of creative collaboration in entertainment in general. One of the underlying reasons the test is incompatible with the contemporary practices of entertainment is that it is extracted from antiquated sources and thus has proven incongruous in the modern industry. The Ninth Circuit heavily rooted its analysis of "author" in tradition, citing cases from 1884, Eisenstein, Chaucer, and the Founding Fathers.¹⁰⁵ Instead, the Court should have drawn from these sources with greater generality to maintain an appropriate balance between tradition and innovation. For example, the court could have taken the idea of the writer as the "person behind the pen"¹⁰⁶ and applied it more liberally to the context at issue. While *Aalmuhammed* may not have been the physical person holding the pen and writing the screenplay, he did write entire scenes as well as much of the dialogue that was incorporated into the final product.

Scholars also support the argument that the *Aalmuhammed* test diverges from the Act's original intent and, as a result, is inconsistent with the needs and goals of the entertainment industry. Professors Shyamrkishna Balganes, Justin Hughes,

¹⁰⁵ See, e.g., *Aalmuhammed v. Lee*, 202 F.3d 1227, 1232 (9th Cir. 2000)

¹⁰⁶ *Id.*

Peter Menell, and David Nimmer argue that “interpreting the statute so narrowly ignores the careful study and negotiation that went into crafting the Section 101 definitions.”¹⁰⁷ The professors assert that the definition of “joint work” included in Section 101 “recognizes a wide range of collaborative working arrangements by requiring only that the authors collaborated with each other, or if each of the authors prepared his or her contribution with the knowledge and intention that it would be merged with the contributions of other authors.”¹⁰⁸ Further, the use of the mastermind standard could be interpreted as an evasive strategy in that it could be used for the sake of “administrative convenience or to avoid unjustified windfalls, not out of fidelity to legislative intent.”¹⁰⁹ They further note:

Such an interpretation misses the broad and open-ended recognition of collaborative creativity that Congress intended. Undue emphasis on singular control (“the . . . mastermind”) is antithetical to the very nature of joint authorship, which is an intrinsically collaborative exercise. The nature of a collaborative enterprise is such that at times different authors will exercise more control than the others over the work. To require a contributor to exercise equal “inventive” control in order to be a joint author is therefore unrealistic. Second, under the control standard, it is impossible for contributing authors to know in advance whether they are exercising sufficient control over the unitary work while making their individual contributions. The joint authorship doctrine thereby becomes unpredictable, defeating the “paramount goal” of the 1976 Act.¹¹⁰

The Ninth Circuit also mistakenly assumed that the factors apply neutrally to all subject matter. The reliance on the Gilbert and Sullivan example assumes that a songwriter and film consultant have made equal contributions throughout the creation of the work and to the final product in identical ways. The creative process behind the song that Gilbert and Sullivan wrote, however, is extremely simplified

¹⁰⁷ Brief of Amici Curiae Professors Shyamkrishna Balganesh et al. Supporting Neither Party, *Garcia v. Google, Inc.*, 786 F.3d 733 (9th Cir. 2015) (No. 12-57302), at 17.

¹⁰⁸ *Id.* at 13.

¹⁰⁹ *Id.*

¹¹⁰ *Id.* at 13-14.

and not representative of the creation of a motion picture.¹¹¹ Similarly, the court relied on *Thomson* and assumed that the process of creating a Broadway musical mimics that of a motion picture.¹¹² Another assumption undergirding the Ninth Circuit's opinion is that the creative process for one motion picture is the same for all other motion pictures.¹¹³ The function and operation of creative practices within the industry are far from uniform, and to assume so was a dangerous judicial mistake.

The test is also incompatible with the "above the line" versus "below the line" distinction in entertainment, which plays a primary role in monitoring the types of relationships formed during the creative process.¹¹⁴ Those in Hollywood who are "above the line" are recognized as the creative talent or financial supporters of a project.¹¹⁵ The people "below the line," on the other hand, hold the technical and behind-the-scenes positions.¹¹⁶ In particular, the audience appeal factor of the test clashes with the first factor because the audience appeal of a film, more often than not, is owed to the "above the line" personnel such as the A-list stars like Meryl Streep or Emma Stone, who "would not qualify under the court's 'inventive or master mind' test."¹¹⁷ Instead, the director of the film is usually credited and recognized as the mastermind of the film. If these famous participants are unable to secure copyright interests in a work under such a test, it is further unlikely that a person who is "below the line" and part of the "invisible labor" that goes into a film, would either. Despite the frequency with which the *Aalmuhammed* test is employed

¹¹¹ See generally HOMER CROY, *HOW MOTION PICTURES ARE MADE*, (Goemaere Press 2009) (1918) and J.S. RUDSENSKE, *MUSIC BUSINESS MADE SIMPLE: A GUIDE TO BECOMING A RECORDING ARTIST*, (J.P. Denk ed. 2004).

¹¹² See generally JACK VIERTTEL, *THE SECRET LIFE OF THE AMERICAN MUSICAL: HOW BROADWAY SHOWS ARE BUILT* (Sarah Crichton Books 2017) (2016).

¹¹³ See generally JAMES R. MARTIN, *CREATE DOCUMENTARY FILMS, VIDEOS, AND MULTIMEDIA: A COMPREHENSIVE GUIDE TO USING DOCUMENTARY STORYTELLING TECHNIQUES FOR FILM, VIDEO, THE INTERNET AND DIGITAL MEDIA NONFICTION PROJECTS* (Real Deal Press 2010); CROY, *supra* note 111.

¹¹⁴ See GAIL RESNIK & SCOTT TROST, *ALL YOU NEED TO KNOW ABOUT THE MOVIE AND TV BUSINESS* 36-37 (Simon & Schuster 1996).

¹¹⁵ *Id.*

¹¹⁶ *Id.*

¹¹⁷ Balganesch et al., *supra* note 107, at 14.

by numerous courts when discussing various entertainment works, the test has proven inapplicable to certain categories within the modern entertainment industry.

B. The Aalmuhammed test negatively affects entertainment industry employment

The inability of the *Aalmuhammed* test to adapt to the entertainment industry's practices yields unintended consequences on employment. Generally, joint authorship is an important intellectual property right that may play a part in establishing whether or not an individual can obtain future employment opportunities. If an individual meets the requirements to qualify as a joint author, then she will be able to register and obtain a copyright in the work. This further enables her to receive future benefits associated with the copyright, such as the opportunity to be involved with any sequel or a work tangentially related to the original work. This will then increase her exposure, and therefore her potential to garner greater recognition or reputation in the industry. Being known as a joint author may also signify to other creators her potential as a collaborator for future projects, thereby opening the door to future employment opportunities. Without recognition of joint authorship, a co-author may be deprived of the employment opportunities arising from or incidental to copyright ownership.

There are several more specific ways in which the *Aalmuhammed* test is unable to best serve the interests of those seeking employment and those currently employed in the entertainment industry. First, the audience appeal factor disincentivizes participants from contributing to a work because it does not adhere to the fluidity of the creative process. This is evidenced in *Ford*, where the plaintiff did not provide enough evidence upfront that his contributions throughout the creative process impacted the audience appeal of the work. Creators may therefore take additional precautions external to the creative process itself in order to abide by the types of inquiries a court may make upon reviewing whether an artist contributed enough to qualify for authorship rights. The creative process is a lengthy one, involving a broad spectrum of contribution ranging from the first spark of creativity to the final product. Drafts, shot suggestions, lighting changes, deletions, and many other steps that blur the process frequently occur. Requiring or expecting parties involved in the music creative process, for example, to memorialize agreements and document material information at all stages of production is a large burden, especially given the prevalence of oral contracts in the entertainment industry. The difficulty of proving specific contributions after the fact arguably discourages collaboration between creators, and, as a consequence, may adversely affect the labor market within the industry as well.

Second, the *Aalmuhammed* test reinforces the monopolization of the creative process evident in Hollywood and in doing so, inhibits the opportunities for employment growth in entertainment. A recent deal between the Walt Disney Company and 21st Century Fox, in which the former acquired the latter's assets for \$52.4 billion epitomizes how the "Hollywood heavyweights" continue to maintain and exert the upper hand in the broader entertainment industry.¹¹⁸ By expanding its empire even further, Disney undoubtedly will gain a strong foothold over 21st Century Fox's operations, employees included, and even "more control over some of the content that fuels [Disney's] business."¹¹⁹

Even for smaller scale projects in entertainment, employers normally will be able to fulfill positions needed for a music video or a film because prospective creators are eager for their "big break" in Hollywood and would not normally pass down a shot at fame. Those with established reputations such as Steven Spielberg and Quentin Tarantino, then, are able to maintain the upper hand in terms of bargaining power (and the subsequent copyrights), making it much more difficult for individuals to make a name for themselves. Different hiring structures or novel approaches to the distribution of responsibility will not be implemented as a result of the cemented status quo and monopoly over employment. Opportunities for employment growth and diversification are thus decreased in ways that harm those trying to break into the industry.

Third, as a consequence of increased litigation over co-authorship claims, courts have experimented with different approaches to applying the *Aalmuhammed* standard, resulting in inconsistent results and ambiguity for jobseekers and employers alike. As a result, proper fair notice is not offered to those who would benefit from awareness of the requirements of co-authorship under the *Aalmuhammed* test. This lack of prospectivity with respect to authorship rights will have a detrimental effect on entertainment industry employment because those who are hiring will not know what protocol or processes to put in place regarding the allocation of degree of control and distribution of responsibilities. That courts may or may not accord proper weight to the audience appeal factor leaves entertainment industry employers with little guidance for dealing with the co-authorship issue and avoiding potential lawsuits over joint authorship claims.

¹¹⁸ See generally Cynthia Littleton & Brian Steinberg, *Disney to Buy 21st Century Fox Assets for \$52.4 Billion in Historic Hollywood Merger*, VARIETY (Dec. 14, 2017 4:04 AM), <http://variety.com/2017/biz/news/disney-fox-merger-deal-52-4-billion-merger-1202631242/>.

¹¹⁹ *Id.*

Similarly, creators or authors will lack the necessary guidance for understanding whether or not they have to direct their contributions in a way that will affect the audience appeal of the work. One major incentive a participant to a project may have in agreeing to provide services is the potential recognition he or she could gain as a result of being listed as a co-author to a work. The incentive may be lost among the confusion caused by the unclear rules and judicially constructed obstacles blocking the path to legal recognition of joint authorship. Both parties involved may then lose the incentives needed for a successful employment relationship, thus decreasing the potential for collaborative creation.

Fourth, a false impression has been created that any standard other than the *Aalmuhammed* test will result in the overbroad dissemination of copyrights. This, in turn, makes those with more bargaining power overprotected while they employ others. In *Garcia v. Google*, for example, the Ninth Circuit relied on *Aalmuhammed* when addressing Google's argument that an actress hired to say a few lines in a film posted on YouTube did not qualify as a joint author to the work.¹²⁰ The court cited *Aalmuhammed* for the proposition that a work cannot be defined based on "some minimal level of creativity or originality" because such a definition "would be too broad and indeterminate to be useful."¹²¹ Further, the court noted that "its animating concern" in *Aalmuhammed* was that such a definition of "'work' would fragment copyright protection for the unitary film . . . into many little pieces" where anyone might qualify as an author.¹²² The *Google* court feared this would make "Swiss cheese of copyrights."¹²³ The court similarly stated that "treating every acting performance as an independent work would not only be a logistical and financial nightmare, it would turn cast of thousands into a new mantra: copyright of thousands."¹²⁴ The Ninth Circuit took a risk-averse approach, fearing that any alternative to the *Aalmuhammed* test may open the floodgates to copyright claims of joint authorship by every cast and crew member that worked on a film. By establishing *Aalmuhammed* as the only alternative to a world in which joint authorship claims run amok, the desire to keep *Aalmuhammed* as the standard is increased, as are concurrently, the limits on employment.

¹²⁰ *Garcia v. Google, Inc.*, 786 F.3d 733, 736 (9th Cir. 2015).

¹²¹ *Id.* at 742 (quoting *Aalmuhammed v. Lee*, 202 F.3d 1227, 1233 (9th Cir. 2000)).

¹²² *Id.*

¹²³ *Id.*

¹²⁴ *Id.* at 743.

C. The Aalmuhammed test has a negative effect on entertainment unions, which, in turn, further harms industry workers' employment opportunities

The *Aalmuhammed* test may also yield detrimental effects on employment by indirectly diluting the efficacy of entertainment unions to adequately represent workers. Specifically, the inability of the test to properly identify rights may lead to union strikes which, as has happened in the past, could cause networks to restructure their employment processes such that opportunities for post-production creation will be limited.

One of the unions in the entertainment industry that may be negatively affected by this phenomenon is the Writers Guild of America West (WGAW). The WGAW “is a labor union composed of the thousands of writers who write the television shows, movies, news programs, documentaries, animation, videogames and new media content that keeps audiences constantly entertained and informed.”¹²⁵ The Guild covers the rights of writers with respect to derivative works, specifically “minimums, residuals, credits, pension and health contributions, separated rights, and more.”¹²⁶ Strikes are an effective union bargaining tactic. Normally, union members strike in an effort to convince or coerce employers to change their employment practices and conditions. Common wisdom may suggest that the potential of the *Aalmuhammed* test to strip authors of the rights and recognition they deserve might encourage members of the WGAW, for example, to strike. However, striking in response to being denied recognition rights can harm union members' prospects for future employment.

The 2007 Writers Guild of America (WGA) strike against ABC Studios exemplifies the potential negative effects of a labor strike on the writers. Writers for the hit television show *Lost* went on strike in order to receive better recognition and compensation for their creations of derivative digital content tied to the original show.¹²⁷ During this time, innovations in technology had led to the proliferation of derivative works, including “blogs, alternate reality games (ARGs), and

¹²⁵ See generally *What is the Writers Guild of America West?*, WGA, <http://www.wga.org/the-guild/about-us/faq#general1> (last visited Nov. 11, 2018).

¹²⁶ See Denise Mann, *The Labor Behind the Lost ARG: WGA's Tentative Foothold in the Digital Age*, in *WIRED TV: LABORING OVER AN INTERACTIVE FUTURE* 118, 124 (Denise Mann ed., 2014).

¹²⁷ *Id.* at 118-19.

mobisodes¹²⁸ to promote the series.”¹²⁹ Recognizing the rights issues that arose from the growth of these markets, the WGA increased its support for enterprising authors or writers who sought to challenge the traditional studio employment model.¹³⁰ For example, the WGA website stated, “[i]n the age of YouTube, Hulu, Crackle, and MyDamnChannel, new media outlets and digital technologies provide writers increased opportunities to become true creative entrepreneurs, armed with the tools and distribution channels necessary to connect directly with audiences - and often without studio/network intervention - like never before.”¹³¹ While the WGA was increasing its support for such “entrepreneurial” writers, Denise Mann points out that following the strike:

[R]ather than embrace the mass collaborative approach to television explored during the *Lost* moment, the ‘big three’ networks appear to have bolstered their traditional bureaucratic fortresses to maintain singular control over all aspects of the broadcast business. In particular, ABC fired several of the principal executives involved in the *Lost* franchise and reabsorbed many of the functions that the *Lost* writers had performed in collaboration with the network’s programming, marketing, licensing, and merchandising divisions. Since 2011, the big three have reverted to more conventional programming choices (reality shows, sit-coms, episodic dramas), reasserted control over their licensed properties (computer games, novels, board games, and the like), and expanded their in-house digital marketing divisions to create and manage digital promotions tied to their series — all, it seems, in an effort to maintain stricter controls over their industry in the post-strike environment.¹³²

Mann further observes that, since the strike, studios and networks have turned to low-cost in-house labor in what appears to be an effort to escape the demands of

¹²⁸ A mobisode is an episode of television intended for viewing on a mobile device. *See generally* Scott Ruston, *Televisual Narratives in the Palm of Your Hand, Understanding Mobisodes*, PRODUCING TELEVISION, Spring 2008, <https://cinema.usc.edu/assets/054/10994.pdf>.

¹²⁹ Mann, *supra* note 126, at 118.

¹³⁰ *Id.* at 135.

¹³¹ *Id.*

¹³² *Id.* at 119-20

writers seeking greater recognition and remuneration for their contributions.¹³³ She concludes that powerful networks like ABC have displayed an “unwillingness to collaborate with creative partners to the degree seen during the *Lost* moment.”¹³⁴ More troublesome, however, is that “all of the networks have shown a reluctance to grant additional power to showrunners who wish to engage fans by embracing social media as a viable component of the television experience in the digital age.”¹³⁵ She describes that the networks are hesitant about working with outside partners, such as “WGA-represented transmedia czars, PGA-represented transmedia producers, super-fans who wish to contribute to the television experience, or the type of creative entrepreneurs that YouTube is hiring for its 100-channel partnerships.”¹³⁶ Overall, Mann noticed a trend of studios and networks trying to minimize the threat of collaboration by “taking a giant step backward toward their analog past.”¹³⁷

The treatment of the producers for the hit television show *Heroes* further demonstrates how networks have responded to the post-production creative boom in unfavorable ways. In 2007, the show’s producers proposed to network executives the formation of a “transmedia team” to be tasked with managing the continuity of any extensions of the show’s narrative as it expanded beyond its traditional television medium and format through the creation of bonus material made available on other media platforms. The responsibilities of this team would be divided into three main roles: “merchandising,” “coordinat[ing] all narrative mobilizations of the property across comics, the Internet, and the like,” and “work[ing] with the stars of the series to secure their participation in promotions and content made for these new media.”¹³⁸ However, the network ultimately dismissed the proposed model for maintaining narrative continuity and fidelity. This is a paradigm example of what Derek Johnson classifies as the “contradiction between singular authorship and the

¹³³ *Id.* at 122.

¹³⁴ *Id.* at 136.

¹³⁵ *Id.*

¹³⁶ *Id.*

¹³⁷ *Id.*

¹³⁸ See Derek Johnson, *Authorship Up for Grabs: Decentralized Labor, Licensing, and the*

Management of Collaborative Creativity, in WIRED TV: LABORING OVER AN INTERACTIVE FUTURE 32, 40–41 (Denise Mann ed., 2014).

decentralized creativity of networked production cultures.”¹³⁹ Regrettably, it appears that participants who seek alternative means of employment are only met by rejection.

Operating as an obstacle to the recognition of judicial rights and providing limited guidance on creators’ legal rights, the *Aalmuhammed* test arguably contributes to a growing dissatisfaction among entertainment industry unions. The outcome has been debilitating in certain instances. Although some minimums or residuals may be established in the short-term, networks may put up more barriers in response to such proposed changes in the long-term, as exemplified by the *Lost* strike and the doomed *Heroes* proposal. Given the weaker bargaining position of union members, big networks are well-placed to structure their operations in a manner that promotes their interests, much to the detriment of entertainment creators. Union mobilization would be disrupted and potentially paralyzed if networks take advantage of the *Aalmuhammed* test protections. Employee creators would struggle to avail themselves of joint authorship status under the three-factor *Aalmuhammed* test, especially in the emerging context of derivative supplemental and promotional content designed to “keep the story alive” as it migrates across consumption platforms. Creators would be hard-pressed to show that they contributed to the original story, that all relevant parties manifested mutual intent to be co-authors, and that they contributed to audience appeal.

Writers are also directly burdened by the adverse effects the *Aalmuhammed* test has on entertainment unions. Given the monopolization of the creative process, writers may struggle to obtain a writing credit for projects they worked on despite their sizable contributions. The WGA has a system in which “any writer whose work represents a contribution of more than 33% of a screenplay shall be entitled to screenplay credit. One exception exists for original screenplays in which any subsequent writer or writing team must contribute 50% to the final screenplay.”¹⁴⁰ In order to determine whether a writer meets this threshold, an arbiter is brought in to consider various elements of their contribution to the work at issue, including dramatic construction, original and different scenes, characterization or character relationships, and dialogue.¹⁴¹ Each work is looked at independently and there are no

¹³⁹ *Id.* at 34.

¹⁴⁰ See WRITERS GUILD OF AMERICA, SCREEN CREDITS MANUAL 16 (2010), <http://www.wga.org/contracts/credits/manuals/screen-credits-manual#4> (defining the term “writer”).

¹⁴¹ *Id.*

formulas an arbiter must use. The WGA, in contrast to the *Aalmuhammed* test, approaches the authorship analysis with much needed flexibility.

In Hollywood, receiving a writing credit signifies the writer's accomplishment and can bolster her reputation. A writing credit is an important touchstone of the writer's professional development because as "writers move from project to project, a career is created as people move from credit to credit."¹⁴² Further, a writing credit "facilitates the assessment of talent in a high-velocity labor market" and provides "residuals . . . [to] . . . compensate writers during periods of slack employment, thus keeping their human capital in the industry."¹⁴³ One way in which a residual provides better compensation to writers is through the allocation of a credit bonus, which is "a provision of an individual hiring contract stating that the writer will receive a bonus if the writer is determined to get screen credit."¹⁴⁴ By minimizing the writer's ability to legally establish co-authorship, the *Aalmuhammed* test may have adverse economic repercussions on writers by minimizing their ability to gain writing credit and its associated benefits.

Overall, the *Aalmuhammed* test-or-nothing approach creates obstacles to joint authorship status and future employment opportunities for creative contributors.

V. PROPOSALS FOR REFORM

That brings the analysis to the next question: what *should* be the standard by which joint authorship is determined?

Professor Balganesh et al. recommend implementing a test that analyzes the contributions made and the "mutual intent among the collaborators that they be joint authors," rather than focusing on the control element of the work.¹⁴⁵ Such inquiry as to mutual intent will only arise when the "parties have not expressly contracted ownership."¹⁴⁶ This approach would allow "all principal creative collaborators in the production of a motion picture, sound recording, or other collaborative work" to

¹⁴² Catherine L. Fisk, *The Role of Private Intellectual Property Rights in Markets for Labor and Ideas: Screen Credit and the Writers Guild of America, 1938-2000*, 32 BERKELEY J. EMP. & LAB. L. 215, 250 (2011).

¹⁴³ *Id.* at 248.

¹⁴⁴ *Id.* at 264.

¹⁴⁵ Balganesh et al., *supra* note 107, at 15-16.

¹⁴⁶ *Id.* at 16.

“qualify as joint authors”.¹⁴⁷ While the professors qualify that this would not result in every single contributor being granted joint authorship, this standard remains problematic with respect to the entertainment industry. For example, agreements to take on certain roles often do not go as far as establishing a mutual intent to be joint authors given the time constraints of production on set and the prevalence of oral contracts.

Professor Christopher Jon Sprigman proposes another systematic approach that imposes a default rule that parties may contract around to reach the idealized authorship relationship.¹⁴⁸ In practice, a default rule would establish which party would automatically be granted joint authorship status. Sprigman further suggests making the default rule “painful” so that the parties, in objecting to it, will have to provide information about which contributors they would prefer to credit with joint authorship status.¹⁴⁹ Parties have the ability to opt-out of the default rule and can negotiate against the background of clear rules. While this proposal offers an organized, approachable solution, it may not pair well with the elasticity and flexibility of the creative process. Specifically, there may not be time to engage in the contracting, nor would there be widespread knowledge of a default rule one would need to contract out of in the first place. Further, it places the parties in a situation where a negotiation, or at least a discussion, would have to take place from the outset. This may disincentivize collaboration, as creators may wish to avoid the trouble and cost of bargaining over authorship *ex ante*.

Another area of the law that has been proffered as a solution to the authorship question is the work made for hire doctrine. The Copyright Act defines a work made for hire as “a work prepared by an employee within the scope of his or her employment” or a work that is commissioned specifically to be used in a variety of listed works, including, in most relevant part, “as a part of a motion picture,” with the parties “expressly agree[ing] in a written instrument signed by them that the work shall be considered a work made for hire.”¹⁵⁰ In *Community for Creative Non-Violence v. Reid*, the Supreme Court delineated a list of factors that can be used to determine whether or not a work qualifies as a work made for hire by identifying the

¹⁴⁷ *Id.*

¹⁴⁸ Christopher Jon Sprigman, Remarks for Advanced Copyright Class at New York University School of Law (Spring 2018).

¹⁴⁹ *Id.*

¹⁵⁰ 17 U.S.C. § 101 (2012).

status of the person hired.¹⁵¹ Hiring status becomes determinative to the extent that the copyright lies with the employer if the creative contributor is an employee or independent contractor with the requisite signed written agreement. To determine the employment status of a hired party, the Supreme Court looked to the following factors:

the hiring party's right to control the manner and means by which the product is accomplished, the skill required, the source of the instrumentalities and tools, the location of the work, the duration of the relationship between the parties, whether the hiring party has the right to assign additional projects to the hired party, the extent of the hired party's discretion over when and how long to work, the method of payment, the hired party's role in hiring and paying assistants, whether the work is part of the regular business of the hiring party, whether the hiring party is in business, the provision of employee benefits, and the tax treatment of the hired party.¹⁵²

The proposed solution, then, is to have the employers tailor the course of employment to fit the *Reid* factors such that the person hired would affirmatively qualify as an employee. Employers would arguably use this strategy when they could anticipate a potential copyright claim. As evidenced by the fluctuations inherent to the entertainment industry in both hiring and throughout the creative process itself, predicting copyright claims or even framing the employment relationship to adhere to the *Reid* factors is, for the most part, too difficult to execute.

While more compatible with the functions and operations of the modern entertainment industry, a case-by-case analysis lacks the guidance courts may seek when addressing such joint authorship issues. Stripping courts of judicial guidance on the one hand, and rote application of an obsolete and poorly designed three-part test on the other, are both not ideal. Instead, a middle-ground approach should be adopted in order to provide the courts with necessary assessment tools and background knowledge, while still allowing them the freedom to embrace the fluidity they may encounter in the various fact patterns presented.

First, guidelines should be tailored to the subject or content at issue, whether it takes the form of films, television shows, musicals, music videos, or the like. Tests

¹⁵¹ Cnty. for Creative Non-Violence v. Reid, 490 U.S. 730, 751-52 (1989).

¹⁵² *Id.* at 752.

with distinct factors may be developed for the various kinds of content, as long as they allow for the flexibility inherent to the entertainment industry and permit creators to freely roam within its carefully crafted boundaries. For example, a test for motion pictures could account for creative contributions by film consultants by analyzing the quantum of control they exercised over the film. Under such a test, a court may determine that if Aalmuhammed had rewritten or had a significant impact on more than one half of the total scenes, then he should have been awarded joint authorship status. Musical works, too, should be analyzed in ways that account for more than stereotypical elements that are considered by a court to make a “rap” song popular or a “country” song identifiable. Instead, an objective approach should be implemented whereby the stereotypes that Judge Gregory had relied on in *Flowers* are removed.

Second, plaintiffs or defendants may introduce as evidence market studies that describe which aspects of an entertainment work served as most attractive to its audience members. By relying on what consumers actually think, this may reduce the potential for mistaken attributions of ownership and disputes over whose contributions made the biggest impact with respect to revenue or audience appeal. Market studies of this kind can also assuage the concerns of judges who fear the theoretical onslaught of endless co-authorship claims. This middle-ground approach will thus avoid any slippery slope, or as Google’s attorneys would like to say, “the Swiss cheese of copyrights.”¹⁵³

Another player that can improve the current framework surrounding joint authorship is Congress. Congress can amend the Copyright Act in ways that provide guidance not just to judges, but also to the creators themselves. For example, the Section 101 definition of “joint work,” as well as the Copyright Act in general, currently lack a definition of “author.” Congress can narrowly revise the Copyright Act to account for idiosyncratic works to which there are many contributors, by qualifying that “an author, particularly in creative works in which many different collaborators contribute, may not necessarily fit the ideal or traditional characteristics one would normally associate with the title.” Such a revision would clarify overbroad or vague language, while also loosening the standards to which collaborators may have felt previously bound. Such guidance could function as the proper notice collaborators should be able to rely on, thus diminishing any reluctance on the part of would-be collaborators to enter into a collaborative creative

¹⁵³ *Garcia v. Google, Inc.*, 786 F.3d 733, 742 (9th Cir. 2015).

relationship, reducing the likelihood of authorship battles erupting, and ultimately improving the overall efficiency of the entertainment industry.

CONCLUSION

*“Then he burst out crying. ‘Sorry,’ he said, regaining his composure. ‘It’s been difficult because there’s been a lot of criticism, obviously, and that was never the intention.’”*¹⁵⁴ – Steven Jan Vander Ark

The judicial system’s current treatment of those who seek vindication of their claims for joint authorship paints a rather bleak picture: one where enthusiastic creators like Steven Jan Vander Ark are reduced to tears on the stand. Vander Ark is joined by film consultants like Aalmuhammed, screenwriters like Richlin, sound engineers like Brown, and band members like Morrill who put their trust in the legal system to secure their authorship rights as creative contributors after their fellow collaborators denied them the credit and benefits they deserve. To their dismay, the Ninth Circuit’s three-part test to determine whether an individual qualifies as a joint author to a work was unaccommodating with respect to both the major creative roles they played as well as the modern functions of the entertainment industry.

Entertainment has proven to be one of the most booming industries in society today, providing high quality content in unprecedented ways across the globe. Yet while the industry continues to grow, the legal framework for the authorship question remains stuck in the past. Poorly suited for the expanded marketplace for collaboration and unchanged in the face of widespread innovative media technologies, the Ninth Circuit’s obsolete test hinders, rather than furthers Congress’s explicit constitutional duty to promote the growth of the arts. This paradox, where the judicial system’s treatment of authorship ultimately disincentivizes authors, the very people expected to create, heightens the necessity for reform. To improve employment in the modern entertainment industry and further the policy goals of copyright law, the Ninth Circuit’s test must no longer serve as the governing standard for evaluating joint authorship rights.

The judicial system must play its role in granting and reinforcing the allocation of intellectual property rights so that those who are deserving of credit in the creative process can do so without worrying about having their contribution minimized. This is a call to action for the courts to recognize its role in creating

¹⁵⁴ Anemona Hartocollis, *Sued by Harry Potter’s Creator, Lexicographer Breaks Down on the Stand*, N.Y. TIMES, Apr. 16, 2008, at B1.

barriers to employment in the entertainment industry and craft more appropriately tailored authorship tests to better accommodate those who are employed and who seek to be employed in the entertainment industry. A more carefully articulated framework can be implemented to strike a fair balance between infinite copyrights on the one hand and a monopoly over copyrights on the other. It is not solely up to the courts; Congress must amend the Copyright Act to overcome the inherent vagueness underlying the statutory definition of “author” as well. These reforms have been advanced by scholars and creators alike. In a multibillion dollar industry where success is highly correlated with authorship rights, it is simply too costly to leave the Vander Arks of the world stripped of their rightful legal protection.

NEW YORK UNIVERSITY
JOURNAL OF INTELLECTUAL PROPERTY
AND ENTERTAINMENT LAW

VOLUME 8

FALL 2018

NUMBER 1

USING THE ECONOMIC ESPIONAGE ACT TO PROTECT
TRADE SECRETS IN BASEBALL

BRETTE TROST*

In 2016, Christopher Correa, a former employee of the St. Louis Cardinals, was sentenced to forty-six months in prison for violating the Computer Fraud and Abuse Act when he accessed a Houston Astros database without authorization. However, these were not the only charges Correa could have faced. This note uses the Correa case to illustrate how the Economic Espionage Act can be used to prevent trade secret theft in Major League Baseball. More specifically, this note asserts that the sabermetric data systems used by MLB teams to evaluate and track players are legally protectable trade secrets. Furthermore, due to the fluid nature of the baseball analytics talent pool and barriers to civil prosecution inherent in baseball's structure, the Economic Espionage Act presents the best way to combat the misappropriation of this information. The note goes on to distinguish between teams' off-field and on-field tactics and discusses how, if at all, this framework should apply to the collection and use of biometric data.

INTRODUCTION.....	128
I. TRADE SECRET LAW AND ITS APPLICATION IN BASEBALL	132
A. <i>An Overview of Trade Secret Law</i>	133
B. <i>Definition of Trade Secrets Under the EEA</i>	135
C. <i>The Interstate Commerce Requirement and Intent</i>	140
D. <i>The EEA as Applied in Correa’s Case</i>	142
II. THERE ARE POLICY REASONS TO APPLY THE ECONOMIC ESPIONAGE ACT TO TRADE SECRET THEFT IN BASEBALL	149
A. <i>The Fluidity of Personnel in Baseball Creates a High Risk for Misappropriation</i>	150
B. <i>How Disputes Are Resolved in the Absence of Criminal Sanctions</i>	157
C. <i>Conventional Methods of Protecting Trade Secrets Are Ineffective</i>	159
III. ON-FIELD TACTICS	160
A. <i>Non-Verbal Signals Could Meet the Definition of a Trade Secret</i>	161
B. <i>The Legal System Should Not Be Involved in Adjudicating Disputes over On-Field Misappropriation</i>	163
IV. THE FUTURE OF SPORTS DATA	164
CONCLUSION	167
APPENDIX.....	167

INTRODUCTION

Sports are the paradigm of competition. They are perhaps the arenas of business in which winning is most objectively quantifiable and competition is on display every night. On the field, competitive tactics are expected and gamesmanship is routine. Yet behind the scenes, there is an army of data scientists who are competing in their own way. Their competition does not revolve around which team collects the most runs after nine innings but rather around who can discover the most effective means of evaluating the players on the field.

This facet of the game is no secret. However, the extent to which some are willing to go to gain a competitive edge became strikingly apparent in 2016, when Christopher Correa, a member of the St. Louis Cardinals’ baseball operations staff, received a forty-six-month prison sentence for hacking into a Houston Astros’ database.¹ The database, known as “Ground Control,” was built by the Astros’

* J.D. Candidate, New York University, 2019; B.A., English, University of Pennsylvania, 2013. The author would like to thank Professor Harry First for his expertise and guidance.

¹ Judgement in a Criminal Case at 1-3, United States v. Correa, No. 4:15-CR-00679 (S.D. Tex. July 21, 2016).

baseball operations department to house scouting reports, trade discussions, proprietary statistical analysis, injury histories, projections for players, contract information, and more.²

Major League Baseball (“MLB”) has undergone a major transformation over the last two decades. A game that once largely relied on subjective analyses and gut instincts to assess players, professional baseball—through the collection and study of statistical data—is now obsessed with an objective search for truth.³ This objective analysis, or sabermetrics as it is commonly known, began as a hobby held by a few people scattered throughout the baseball world,⁴ but it has since turned into an industry-wide practice, rapidly becoming the fixation of nearly every team in the league.⁵ Teams now hire the most technical and scientific minds in the country, such as NASA engineers, data scientists from leading statistical software companies, and PhDs in cognitive neuroscience, applied statistics, and machine learning, in order to gain any slight competitive edge in discovering the most intricate details of a player’s ability.⁶

Sabermetrics, named after the Society of American Baseball Research (“SABR”), is defined as “advanced statistical collection and analysis to develop objective knowledge about baseball for use in player evaluation and tactical decision-making.”⁷ Collecting certain statistics, such as batting average and earned run average, has been a part of the game since baseball’s inception.⁸ However, for

² Evan Drellich, *Astros’ Formula for Success Builds on Its Own Data Bank*, HOUS. CHRON. (Mar. 10, 2014, 9:00 AM), <http://www.houstonchronicle.com/sports/astros/article/Astros-formula-for-success-builds-on-its-own-5300746.php>.

³ See generally Leigh Steinberg, *Changing the Game: The Rise of Sports Analytics*, FORBES (Aug. 18, 2015, 3:08 PM), <https://www.forbes.com/sites/leighsteinberg/2015/08/18/changing-the-game-the-rise-of-sports-analytics/#638221644c1f> (describing analytics as the “present and future of professional sports” and that any team not using them is at a “competitive disadvantage”).

⁴ Lara Grow & Nathaniel Grow, *Protecting Big Data in the Big Leagues: Trade Secrets in Professional Sports*, 74 WASH. & LEE L. REV. 1567, 1575 (2017) [hereinafter Grow & Grow] (“[P]ractically every team in MLB today utilizes sabermetric principles to at least some extent . . .”).

⁵ *Id.*

⁶ Ben Baumer, *In a Moneyball World, a Number of Teams Remain Slow to Buy into Sabermetrics*, MLB article within *The Great Analytics Rankings*, ESPN (Feb. 23, 2015), http://www.espn.com/espn/feature/story/_/id/12331388/the-great-analytics-rankings#.

⁷ R. Mark Halligan & Matthew J. Frankel, Nixon Peabody CLE Presentation: Secret Sabermetrics: Trade Secret Protection in the Baseball Analytics Field (Apr. 9, 2012), https://nixonpeabody.adobeconnect.com/_a769300970/p25o1a1pgvg/.

⁸ Grow & Grow, *supra* note 4, at 1571-72 (“As early as 1845 . . . newspapers began printing box scores recapping the statistical achievement of players in amateur baseball contests.”).

most of the twentieth century, the examination of more granular data was only performed by “amateur statisticians from outside the baseball establishment” and “statistically-inclined fans.”⁹ By the end of the century, several companies, such as Baseball Prospectus and STATS LLC, began to collect more extensive data, including the speed and type of every pitch thrown during a game. Nonetheless, while baseball has been played in the United States since 1840, it was not until 2003, when Michael Lewis published the book *Moneyball: The Art of Winning an Unfair Game*,¹⁰ that baseball industry insiders awoke to the potential of using analytical techniques to assess talent. Lewis’ book focused on one team, the Oakland Athletics, as it embarked on what was seen at the time as a unique and innovative process.¹¹ Now, every team relies at least to some extent on the use of analytics.¹²

Baseball teams own many of the same types of information as that which traditional businesses own, such as customer lists, pricing data, and marketing strategies. These categories of information are generally considered trade secrets when companies take reasonable measures to protect them.¹³ Unlike traditional businesses, however, teams collect and store a plethora of data specific to the baseball industry, including statistical analyses (such as compilations and algorithms for new metrics),¹⁴ scouting reports, trade proposals or discussion notes, playbooks, verbal or hand signals used on the field, player skill techniques, player training techniques, dietary and nutritional regimens, physical therapy techniques, psychological assessment techniques, and biometric analyses.¹⁵ Many people in the

⁹ *Id.* at 1574, 1575.

¹⁰ MICHAEL LEWIS, *MONEYBALL: THE ART OF WINNING AN UNFAIR GAME* (2003).

¹¹ Grow & Grow, *supra* note 4, at 1575.

¹² *Id.* (“[P]ractically every team in MLB today utilizes sabermetric principles to at least some extent . . .”).

¹³ See *United States v. Nosal*, 844 F.3d 1024, 1042-43 (9th Cir. 2016) (customer lists), *In re Dana Corp.*, 574 F.3d 129, 152 (2d Cir. 2009) (pricing data), *Optic Graphics, Inc. v. Agee*, 591 A.2d 578, 586 (Md. Ct. Spec. App. 1991) (marketing strategies).

¹⁴ Statistical analyses include, for example, the calculation of probabilities for defensive positioning, which has led to the proliferation of the infield shift. The infield shift typically involves moving infielders away from their standard positions to better account for a batter’s tendency to put the ball in play on one side of the field. For a brief discussion of the infield shift, see David Waldstein, *Who’s on Third? In Baseball’s Shifting Defenses, Maybe Nobody*, N.Y. TIMES (May 12, 2014), <https://www.nytimes.com/2014/05/13/sports/baseball/whos-on-third-in-baseballs-shifting-defenses-maybe-nobody.html>.

¹⁵ See Grow & Grow, *supra* note 4, at 1605 (surveying the general counsels of teams across the four professional sports as to what categories of information they deem be trade secrets).

baseball industry assert that such baseball-specific-data, which teams store and collect, constitute trade secrets.¹⁶

Despite the many potential trade secrets, there have not been any cases that discuss what material qualifies as a trade secret in baseball. Although Correa misappropriated information from Ground Control, a system that housed almost all of the Astros' proprietary information, Correa was instead prosecuted under the Computer Fraud and Abuse Act (CFAA)¹⁷ for hacking Ground Control.¹⁸ What was criminalized was the fact that he accessed the information "without authorization,"¹⁹ not the misappropriation of the information he obtained, and likely used, from the hacking. Due to the lack of court decisions (criminal or civil), there is no direct precedent holding that these types of analytics databases are in fact trade secrets. Nor is there extensive analysis of how teams keep this data secret and whether those controls are effective. Further, strategies the industry and public accept as part of the competitive nature of sports, such as on-field tactics to gain a competitive advantage like "stealing signs," could be more intensely scrutinized if the legal system is used to police what should be considered fair competition in baseball.

Part I of this note will argue that the sabermetric data systems used by MLB teams to evaluate and track players are legally protectable trade secrets. Part II will examine the fluid nature of the baseball analytics talent pool, and will suggest that because of this aspect of the industry, the best way to prevent the misappropriation of these trade secrets is through criminal prosecution under the Economic Espionage Act of 1996 (EEA).²⁰ Part III will discuss on-field strategies, arguing that although the improper acquisition of on-field plays through tactics like sign-stealing may, in certain cases, technically meet the definition of theft of trade secrets under the EEA,

¹⁶ See *id.*; see also Rich Lederer, *An Unfiltered Interview with Nate Silver*, BASEBALL ANALYSTS (Feb. 12, 2007), http://baseballanalysts.com/archives/2007/02/an_unfiltered_i.php (referring to the detailed formulas in Nate Silver's analytics system, PECOTA, as a trade secret); Jenny Vrentas, *Mets Statistical Analyst Has Seen Growth and Evolution of Sabermetrics in MLB*, STAR-LEDGER (Apr. 23, 2010), http://www.nj.com/mets/index.ssf/2010/04/mets_statistical_analyst_has_s.html (quoting Ben Baumer saying teams are guarded about the statistical analyses they engage in because "it's trade secrets").

¹⁷ Computer Fraud and Abuse Act, 18 U.S.C. § 1030 (2012).

¹⁸ Information at 2, 5, *United States v. Correa*, No. 4:15-CR-00679 (S.D. Tex. July 21, 2016) (charging Correa with violating 18 U.S.C. §§ 1030(a)(2)(C), 1030(c)(2)(B)(iii)).

¹⁹ 18 U.S.C. § 1030(a)(2)(C) ("Whoever intentionally accesses a computer without authorization . . . and thereby obtains . . . information from any protected computer . . . shall be punished as provided in subsection (c) of this section.").

²⁰ Economic Espionage Act of 1996, Pub. L. No. 104-294, 110 Stat. 3488 (codified as amended at 18 U.S.C. §§ 1831-1839).

this behavior does not warrant the imposition of criminal sanctions. Finally, Part IV will briefly analyze future questions on the proprietary nature of baseball data, noting that the focus will be less on sabermetric statistical systems and more on the collection, compilation, and ownership of biometric data.

I.

TRADE SECRET LAW AND ITS APPLICATION IN BASEBALL²¹

Since teams deal with many different types of information, Lara and Nathaniel Grow surveyed the general counsels of teams across the four major North American professional sports leagues—baseball, basketball, football, and hockey—on what they believed to be trade secrets.²² The survey, which received responses from nineteen teams, including two in MLB, revealed that 89.47% claimed that their scouting reports were trade secrets, 78.95% asserted trade secret protection over trade proposal or discussion notes, 73.68% asserted trade secret protection over statistical analyses, and 52.63% asserted trade secret protection over player skill development techniques and biometric analyses.²³ Variations among the general counsels' responses is likely due to the different information-collection practices between the four major North American sports leagues—that is, differences in the amount and type of data collected in one sport compared to the other three sports and differences in how biometric data is relied upon in one sport compared to the other three sports.²⁴

²¹ This will examine only trade secret law in the United States. There is one baseball team in Canada, the Toronto Blue Jays, and thus Canadian law could be implicated. However, for the purposes of this paper, only provisions of U.S. law will be examined. For a brief summary of Canadian trade secret protection in this context, see Grow & Grow, *supra* note 4, at 1599-1601.

²² Grow & Grow, *supra* note 4, at 1605.

²³ *Id.*

²⁴ Of the nineteen respondents, two responses came from MLB, seven from the NBA, four from the NFL, and six from the NHL. Each sport has different approaches to the use of data, specifically biometric data. Players in the NHL, NBA, and NFL have been more outspoken with privacy concerns relating to the collection of biometric data and have sought to restrict the use of biometric devices during games. *See, e.g.,* Jeremy Venook, *The Upcoming Privacy Battle over Wearables in the NBA*, ATLANTIC (Apr. 10, 2017), <https://www.theatlantic.com/business/archive/2017/04/biometric-tracking-sports/522222/>. When it comes to collecting analytical material in general, sports have relied on analytics at different paces. For example, the NFL has “lagged behind other professional leagues amid an otherwise widespread analytics revolution” Kevin Clark, *NFL’s Brewing Information War*, RINGER (June 22, 2016, 1:13 PM), <https://www.theringer.com/2016/6/2/16077478/nfl-information-war-data-advanced-stats-73b6eee2d39f>.

Given the general counsels' apparent zeal for believing that their scouting reports, trade proposals and discussion notes, statistical analyses, player skill development techniques, and biometric analyses constitute trade secrets,²⁵ it is worthwhile to analyze whether such information actually satisfies the EEA's requirements for trade secret protection. Using baseball as a case study, this note begins by exploring whether sabermetric data systems fall within the EEA.

Under the EEA, a trade secret is defined as "all forms and types of financial, business, scientific, technical, economic, or engineering information, including patterns, plans, compilations, program devices, formulas, designs, prototypes, methods, techniques, processes, procedures, programs, or codes, whether tangible or intangible," provided that the "owner . . . has taken reasonable measures to keep such information secret," and the information "derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable . . . by, another person who can obtain economic value from the disclosure or use of the information."²⁶ While people in the baseball industry have asserted that the data they collect and the systems they create are trade secrets,²⁷ there are almost no legal precedents that deal directly with this issue. Though Correa was not charged with violating any trade secret laws, his case provides insight into how baseball data could be subject to trade secret protection and potential criminal prosecution. This note argues that much of the content stored on sabermetric data systems, especially scouting reports and statistical analyses of player talent, can and should receive trade secret protection under the EEA.

A. An Overview of Trade Secret Law

Though laid out in its current form above, how the law, specifically the criminal law, defines a trade secret has changed over the last decade. To help clarify and strengthen trade secret protection, Congress amended the EEA through the enactment of the Theft of Trade Secrets Clarification Act of 2012²⁸ and the Defend Trade Secrets Act of 2016 (DTSA).²⁹

²⁵ Grow & Grow, *supra* note 4, at 1605.

²⁶ 18 U.S.C. § 1839(3) (2012 & Supp. IV 2017).

²⁷ See Lederer, *supra* note 16 (referring to the detailed formulas in Nate Silver's analytics system, PECOTA, as a trade secret); Vrentas, *supra* note 16 (quoting Ben Baumer saying teams are guarded about the statistical analyses they engage in because "it's trade secrets").

²⁸ Theft of Trade Secrets Clarification Act of 2012, Pub. L. No. 112-236, 126 Stat. 1627 (codified as amended at 18 U.S.C. § 1832(a) (2012)).

²⁹ Defend Trade Secrets Act of 2016, Pub. L. No. 114-153, 130 Stat. 376 (codified as amended in scattered sections of 18 U.S.C.).

In 1996, Congress passed the Economic Espionage Act to fill a hole in the statutory scheme. Lawmakers recognized the necessity of protecting the intangible assets of companies in the United States in response to the challenges prosecutors faced in fitting the misappropriation of these assets into statutes like mail and wire fraud,³⁰ the National Stolen Property Act,³¹ and the CFAA, which were not designed for this type of prosecution.³² President Bill Clinton acknowledged a growing need for a statute dedicated solely to the protection of these assets through the criminal law, noting that “[t]rade secrets are an integral part of virtually every sector of our economy and are essential to maintaining the health and competitiveness of critical industries operating in the United States.”³³

The EEA provides a fine, a prison sentence of up to ten years, or both for individuals who steal or without authorization appropriate trade secrets as follows:

Whoever, with intent to convert a trade secret, that is related to a product or service used in or intended for use in interstate or foreign commerce, to the economic benefit of anyone other than the owner thereof, and intending or knowing that the offense will, injure any owner of that trade secret, knowingly steals, or without authorization appropriates . . . such information . . . shall . . . be fined under this title or imprisoned not more than 10 years, or both.³⁴

Much of the jurisprudence that defines trade secrets relies on interpretations under the Uniform Trade Secrets Act (UTSA),³⁵ a model state law which as of January 2019 has been adopted in forty-seven states and the District of Columbia.³⁶ The UTSA and EEA provide largely identical definitions of a trade secret, especially

³⁰ See 18 U.S.C. § 1341, 1343 (2012) (mail and wire fraud).

³¹ 18 U.S.C. §§ 2314-2315.

³² See R. Mark Halligan, *Revisited 2015: Protection of U.S. Trade Secret Assets: Critical Amendments to the Economic Espionage Act of 1996*, 14 J. MARSHALL REV. INTELL. PROP. L. 476, 480 (2015) (“Before the EEA, federal prosecutors relied primarily upon the National Stolen Property Act and the wire and mail fraud statutes to commence criminal prosecutions for trade secret theft. Both statutes were ineffective.” (citation omitted)).

³³ *Id.* at 480-81.

³⁴ 18 U.S.C. § 1832(a).

³⁵ UNIF. TRADE SECRETS ACT § 1(4) (amended 1985), 14 U.L.A. 438 (1990).

³⁶ *Trade Secrets Act*, UNIFORM LAW COMMISSION, <https://my.uniformlaws.org/committees/community-home?CommunityKey=3a2538fb-e030-4e2d-a9e2-90373dc05792> (last visited Jan. 2, 2019).

following the enactment of the DTSA.³⁷ Judicial interpretations of trade secrets under the UTSA have provided a body of case law to guide the interpretation of the EEA.³⁸

B. Definition of Trade Secrets Under the EEA

In order to be a trade secret under the EEA, the prosecutor or plaintiff must show three distinct elements: (i) the alleged trade secret falls within a listed type of information; (ii) the owner has taken “reasonable measures” to keep that information secret; and (iii) the information derives “independent economic value” from not being generally known or ascertainable through “proper means.”³⁹

The threshold element, that the alleged trade secret falls within a listed type of information, is fairly simple to meet.⁴⁰ To fall within the EEA, the alleged trade secret must be “financial, business, scientific, technical, economic, or engineering information, including patterns, plans, compilations, program devices, formulas, designs, prototypes, methods, techniques, processes, procedures, programs, or codes, whether tangible or intangible.”⁴¹

In *Nat’l Football Scouting, Inc. v. Rang*,⁴² the U.S. District Court for the Western District of Washington addressed the question of whether scouting reports fall within the listed types of information. *Rang* is the “only reported court decision considering the status of proprietary sports-related knowledge under trade secrecy law.”⁴³ In that case, National Football Scouting, Inc. (“National”) sued Robert Rang, a part-time sportswriter, and the website for which he wrote, Sports Xchange, for

³⁷ Defend Trade Secrets Act of 2016, Pub. L. No. 114-153, 130 Stat. 376 (codified as amended in scattered sections of 18 U.S.C.).

³⁸ See, e.g., *United States v. Chung*, 659 F.3d 815, 825 (9th Cir. 2011) (“[W]e consider instructive interpretations of state laws that adopted the UTSA without substantial modification.”); see also *United States v. Hanjuan Jin*, 833 F. Supp. 2d 977, 1007 n.3 (N.D. Ill. 2012) (“Although there are some differences between the definitions of a trade secret found in the UTSA and the EEA, the Court also considers cases that have interpreted the requirements for a trade secret under state law based on the UTSA.”).

³⁹ 18 U.S.C. § 1839(3).

⁴⁰ See Rice Ferrelle, *Combatting the Lure of Impropriety in Professional Sports Industries: The Desirability of Treating a Playbook as a Legally Enforceable Trade Secret*, 11 J. INTELL. PROP. L. 149, 164-65, 168-69 (2003), (listing some of the more obscure types of information that have been considered trade secrets under state law, including “a method of producing unique watercolor paintings,” “techniques for personal spiritual advance,” and a “technique for barbecuing meats”).

⁴¹ 18 U.S.C. § 1839(3).

⁴² *Nat’l Football Scouting, Inc. v. Rang*, 912 F. Supp. 2d 985 (W.D. Wash. 2012).

⁴³ *Grow & Grow*, *supra* note 4, at 1617.

copyright infringement and misappropriation of trade secrets under the UTSA. National's business involved providing scouting reports to NFL teams. The reports were compiled and produced by National's own scouts. Twenty-one NFL teams had each paid \$75,000 for access to the reports. The reports assigned each player an overall "Player Grade," which was "a numerical expression representing National's opinion of the player's likelihood of success in the NFL."⁴⁴ National sued Rang for writing articles which disclosed the Player Grades.

Rang argued that the Player Grades did not qualify as "information" within the meaning of the UTSA because they were subjective opinions, rather than "factual information."⁴⁵ The court rejected this argument, saying "the fact that National has assigned a Player Grade to a certain player is not an idea or opinion."⁴⁶ Instead, the Player Grades constituted "information" under the statute.⁴⁷ The court believed a factual dispute existed as to whether National reasonably kept the information secret and whether the grades had an independent economic value. This, the court held, was a question for the trier of fact. Ultimately, the parties settled.⁴⁸

While the court held that the Player Grades were "information" under the UTSA, it did not take a stance on whether the reports would have constituted "information" had they merely comprised a scout's thoughts on a given player, rather than assigning a Player Grade. It is common practice for scouts to provide a numerical grade when assessing baseball players.⁴⁹ However, would scouting reports which lack numerical player values also qualify as "information" under the EEA? The plain meaning of the term "information" and the function of scouting information in relation to the business of running a professional sports team suggest that scouting reports which lack numerical player values would likely still qualify as "information" under the EEA.⁵⁰

⁴⁴ *Rang*, 912 F. Supp. 2d at 988.

⁴⁵ *Id.* at 995.

⁴⁶ *Id.* at 996.

⁴⁷ *Id.*

⁴⁸ Matthew J. Frankel, *Hackers Strike Out: Recent Cases of Alleged Sports Analytics IP Theft*, 1 J. SPORTS ANALYTICS 83, 85 (2015).

⁴⁹ Alan Siegel, *Baseball Scouts Use Numbers, Too*, FIVETHIRTYEIGHT (Aug. 11, 2014, 9:40AM), <https://fivethirtyeight.com/features/baseball-scouts-use-numbers-too/>.

⁵⁰ See *N. Highland, Inc. v. Jefferson Mach. & Tool, Inc.*, 898 N.W.2d 741, 768. (Wis. 2017) ("Dictionary definitions of 'information' suggest that the term encompasses a broad class of knowledge.").

The compilation of baseball statistics would also qualify as “information” under the EEA. For example, Inside Edge, a baseball analytics company,⁵¹ reviews at-bats of every player to identify and compile specific indicia useful in determining what percentage of those at-bats lead to “well-hit” balls.⁵² The EEA expressly includes “compilations,” as long as they meet the statute’s other prerequisites. Further, the “method” of compiling that data (i.e., through algorithms and code) and the “design” of that information, are also types of information listed in the EEA’s definition of a trade secret.⁵³ Finally, most of these analyses are performed with the aid of proprietary computer programs, which would undoubtedly qualify.

Under the EEA, the second element to qualify as a trade secret is that the owner must take “reasonable measures”⁵⁴ to keep the information secret. The DTSA addresses from whom the information must be kept secret to qualify as a trade secret under the EEA. Originally, the EEA stated that the information must be kept secret from “the public.”⁵⁵ The DTSA made the definition identical to the UTSA, such that the information must be kept secret from “another person who can obtain economic value” from the disclosure.⁵⁶ This narrowed the scope of the provision, as there might be information that is commonly known within an industry but not known to the public.⁵⁷

What qualifies as a “reasonable measure”⁵⁸ to keep information secret? Determining reasonableness usually takes the form of cost-benefit analysis to find the optimal level of precaution that is not overly burdensome given the risk.⁵⁹ Although this would be fact-specific to each case, media reports reveal that teams use the same types of protections as other businesses in securing their materials, such

⁵¹ As of May 2018, twenty of the thirty MLB clubs used Inside Edge’s analytics services. See Jeff Arnold, *Remarkable Brings Sports Data to Life, One Stat at a Time*, SPORTTECHIE.COM (May 31, 2018), <https://www.sporttechie.com/inside-edge-sports-data-app-remarkable-translates-stats/>.

⁵² Alan Schwartz, *Score That a Hit (But Was It Well Hit?)*, N.Y. TIMES (Oct. 22, 2006), <http://www.nytimes.com/2006/10/22/sports/baseball/22score.html>.

⁵³ 18 U.S.C. § 1839(3) (2012).

⁵⁴ *Id.*

⁵⁵ Economic Espionage Act of 1996, Pub. L. No. 104-294, § 101(a), 110 Stat. 3488 (codified as amended at 18 U.S.C. § 1839(3)(B)).

⁵⁶ Defend Trade Secrets Act of 2016 § 2(b)(1)(A), 18 U.S.C. § 1839(3)(B) (2012 & Supp. IV 2017).

⁵⁷ Adam Cohen, *Feature: Securing Trade Secrets in the Information Age: Upgrading the Economic Espionage Act After United States v. Aleynikov*, 30 YALE J. ON REG. 189, 204 (2013) (“Insiders in a business are considerably more likely to know about particular processes and methods than is the public.”).

⁵⁸ 18 U.S.C. § 1839(3)(A).

⁵⁹ Grow & Grow, *supra* note 4, at 1585.

as “walling off” information from those who do not need to know it, using computer security methods (i.e., passwords, firewalls, and surveillance), and having employees sign non-disclosure or non-compete agreements.⁶⁰ Contractual provisions can be especially important in this analysis, as a lack of a non-disclosure agreement “may alone defeat [a] trade secret claim.”⁶¹

Under the EEA, the third requirement for qualifying as a trade secret is that the information’s economic value derives from the fact that it is not “generally known to” or “readily ascertainable” by “another person who can obtain economic value” from the information.⁶² Detailed scouting reports, statistical analysis, and other means of player evaluation help teams create a more competitive product on the field. If another team gains access to these methods of evaluation, it could recreate them at a lower cost. If a team knows what strategy its competitor is going to use, it could more precisely tailor its own strategy. If a competitor knows which players a team values via its scouting reports or the type of statistics the team measures, it could use that in trade negotiations or adopt those strategies if they prove successful and recognize talent before others. To a certain extent, the foregoing relies on the assumption that a more competitive team will lead to a more profitable franchise. Although this metric is slightly undercut by the fact that teams operate as part of a league, which has revenue sharing and as a whole may benefit from a more even playing field,⁶³ given the expenditures teams make on personnel to create analytics databases⁶⁴ and the fact that there are individual revenue streams that

⁶⁰ See *id.* at 1606 (survey finding that 94.74% of teams used computer security methods, 94.74% used non-disclosure agreements, and 78.95% used non-competes); see also Thomas Gorman, *Prospectus Q&A: Mark Johnson*, BASEBALL PROSPECTUS (May 11, 2005), <https://www.baseballprospectus.com/news/article/4024/prospectus-qa-mark-johnson/> (referencing the Cardinals’ Mark Johnson’s non-disclosure agreement); Jon Greenberg, *Q&A: New Cubs ‘Saberist’ Tom Tango*, ESPN (Jan. 30, 2013), http://www.espn.com/blog/chicago/cubs/post/_id/14619/qa-new-cubs-saberist-tom-tango (noting the Chicago Cubs’ Tom Tango’s non-disclosure agreement); Jack Moore, *How Wall Street Strangled the Life out of Sabermetrics*, VICE SPORTS (Oct. 22, 2014, 5:30 AM), https://sports.vice.com/en_us/article/aem895/how-wall-street-strangled-the-life-out-of-sabermetrics (discussing how Andrew Friedman’s consultants at the Tampa Bay Rays were “greeted by non-disclosure agreements”).

⁶¹ Halligan & Frankel, *supra* note 7.

⁶² 18 U.S.C. § 1839(3)(B).

⁶³ J.C. Bradbury, *Encouraging the Poor to Stay Poor*, N.Y. TIMES (Aug. 28, 2010), <http://www.nytimes.com/2010/08/29/sports/baseball/29score.html>.

⁶⁴ For example, the Los Angeles Dodgers paid Andrew Friedman, their President of Baseball Operations, \$35 million. Baumer, *supra* note 6. A team’s President of Baseball Operations makes all of the final decisions regarding baseball strategy and talent acquisition and helps to shape the

increase when a team is more competitive,⁶⁵ it seems fairly clear that there is economic benefit to having these secret programs.

It may be, at first, counterintuitive to think of scouting reports and sabermetric databases as trade secrets, especially given that all the action being observed and measured occurs in public and is largely preserved on video. However, the fact that the data, in the aggregate, comprises a compilation has important implications for evaluating its secrecy. Although each play is public information, the compilation transforms the constituent parts, which are public, into information that gives the team a competitive advantage and economic benefit, thereby becoming a trade secret.⁶⁶

That is, the analysis that goes into the making of a statistic is what makes it a trade secret. While the Player Grades disseminated in *Rang* and the analysis provided by Inside Edge represent types of analytical compilations accessible to and bought by many teams, teams themselves create closely guarded compilations. For example, the Astros created an algorithm for determining when a player in the minor leagues is ready to be promoted to the major leagues. When the player meets the criteria in the algorithm, a green arrow appears next to that player's name. A grey arrow next to the player signals that the player should be demoted, and a black arrow means the player should be cut.⁶⁷ This system is one example of the many ways in which teams create their own proprietary trade secrets. The team must decide what

analytics department through both hiring personnel and spearheading the development of new analytical tools and programs.

⁶⁵ See Ferrelle, *supra* note 40, at 166-67 (“[T]eam victories . . . in turn lead[] to increased advertising, television, and radio exposure. This exposure often translates into increased merchandise sales or lucrative media contracts. . . . As a team organization garners more victories, it reaps increased financial rewards.”); see also Samuel J. Horovitz, *If You Ain’t Cheating You Ain’t Trying: “Spygate” and the Legal Implications of Trying Too Hard*, 17 TEX. INTELL. PROP. L.J. 305, 312 (2009) (“Profitability correlates to on-field success.”).

⁶⁶ See RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 39 cmt. f (AM. LAW INST. 1995) (“[I]t is the secrecy of the claimed trade secret as a whole that is determinative. The fact that some or all of the components of a trade secret are well-known does not preclude protection for a secret combination, compilation, or integration of the individual elements.”); see also *United States v. Nosal*, 844 F.3d 1024, 1042 (9th Cir. 2016) (“The source lists in question are classic examples of a trade secret that derives from an amalgam of public and proprietary source data. To be sure, some of the data came from public sources But cumulatively, the Searcher database contained a massive confidential compilation of data . . .”).

⁶⁷ Joshua Green, *Extreme Moneyball: The Houston Astros Go All in on Data Analysis*, BLOOMBERG BUSINESSWEEK (Aug. 28, 2014, 3:00PM), <https://www.bloomberg.com/news/articles/2014-08-28/extreme-moneyball-houston-astros-jeff-luhnow-lets-data-reign>.

data to collect (i.e., speed, direction, distance, angle), how to collect it (human review, cameras, or software), and how to combine and present it (numbers, graphs, charts, graphics, computer programs, or symbols). Scouting reports, even if done through first-hand observation and annotation of results by scouts, contain some of the same compilation features as do statistics (i.e., what attributes of the player to write down and focus on, how to weigh each of those attributes, how to present the report, and how to measure the importance of each individual scouting report when assessing the overall performance of a player within a larger database). The creation of these evaluation systems all required time, money and effort, making them competitively valuable.⁶⁸

C. The Interstate Commerce Requirement and Intent

Once the plaintiff has established that the information at issue is a trade secret, the EEA has two further threshold requirements for criminal prosecution. First, the trade secret must meet the statute's interstate commerce requirement.⁶⁹ Second, the prosecution must establish a mens rea requirement—that the actions were taken “with intent.”⁷⁰

The interstate commerce requirement of the EEA has been subject to some controversy. As the Act was originally written, the trade secret had to be “related to or included in a product that is produced for or placed in interstate or foreign commerce.”⁷¹ The Theft of Trade Secret Clarification Act of 2012 revised this language to its current form, requiring the trade secret to be “related to a product or service used in or intended for use in interstate or foreign commerce.”⁷² This amendment was passed in response to the Second Circuit's holding in *United States v. Aleynikov*.⁷³ In *Aleynikov*, a Goldman Sachs employee stole source code for a high-frequency trading system, which was used to make large volumes of trades in securities and commodities. The court held that Aleynikov did not violate the EEA

⁶⁸ RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 39 cmt. f (AM. LAW. INST. 1995). (“[I]f acquisition of the information through an examination of a competitor's product would be difficult, costly, or time-consuming, the trade secret owner retains protection . . .”).

⁶⁹ 18 U.S.C. § 1832(a) (2012) (“Whoever, with intent to convert a trade secret, that is related to a product or service used in or intended for use in interstate or foreign commerce . . .”).

⁷⁰ *Id.*

⁷¹ Economic Espionage Act of 1996, Pub. L. No. 104-294, § 101(a), 110 Stat. 3489.

⁷² Theft of Trade Secrets Clarification Act of 2012, Pub. L. No. 112-236, 126 Stat. 1627 (codified as amended at 18 U.S.C. § 1832(a)).

⁷³ *United States v. Aleynikov*, 676 F.3d 71 (2d Cir. 2012); 158 CONG. REC. H6,848 (daily ed. Dec. 18, 2012) (statement of Rep. Smith).

because the source code did not meet the interstate commerce requirement as it was not “produced for” or “placed in” commerce.⁷⁴ Much of the court’s reasoning in *Aleynikov* could have applied to the information at issue here (i.e., it was for internal use only and there was no intention to sell or license the product). However, Congress closed this loophole by expanding the statute to cover services (in addition to products) and by broadening the language to include products or services *intended for use* in interstate commerce.⁷⁵

Here, the statistical databases and scouting reports relate to a “product” used in interstate commerce, namely the sport of baseball. Although baseball may not be a product in the tangible sense, it is surely a product in the same way that most forms of viewable entertainment are products. Professional athletes playing baseball is what the teams are marketing and selling to the public. Baseball is intended for public consumption through the attendance of live events and the viewing of television broadcasts. Given the congressional intent to broaden the EEA’s interstate commerce requirement, it is not a stretch to say that the systems are intended for use in baseball, which is a product used in interstate commerce. Further, though baseball has historically been subject to an antitrust exemption, which was rooted in a finding that the business of baseball was not a part of interstate commerce,⁷⁶ the United States Supreme Court later clarified in *Flood v. Kuhn*⁷⁷ that “[p]rofessional baseball is a business and it is engaged in interstate commerce.”⁷⁸

Finally, the EEA distinguishes itself from its civil counterpart by including a high mens rea requirement for the remaining elements. The alleged thief must (i) *intend* to convert the trade secret to the economic benefit of someone other than the owner, (ii) *intend* or *know* that the theft will injure the owner of the trade secret, and

⁷⁴ *Aleynikov*, 676 F.3d at 79-82.

⁷⁵ 158 CONG. REC. H6,848 (daily ed. Dec. 18, 2012) (statement of Rep. Smith) (“The Second Circuit’s *Aleynikov* decision revealed a dangerous loophole that demands our attention. In response, the Senate unanimously passed S. 3642 in November.”).

⁷⁶ *Fed. Baseball Club of Balt. v. Nat’l League of Prof’l Base Ball Clubs*, 259 U.S. 200, 208-09 (1922).

⁷⁷ *Flood v. Kuhn*, 407 U.S. 258 (1972).

⁷⁸ *Id.* at 282. Though it would likely not be difficult to prove that, despite the antitrust language, the business of baseball is connected to interstate commerce, the fact that this question may be less straightforward and that case law like *Aleynikov* illustrates that this requirement is not something courts are willing to simply look past, prosecutors may be more reluctant to bring charges under the EEA in the context of baseball.

(iii) *knowingly* misappropriate the trade secret through one of the delineated unauthorized acts.⁷⁹ Each element requires a fact-specific inquiry.

D. The EEA as Applied to Correa's Case

As suggested above, Correa's case provides an illustration as to how the EEA could apply to trade secrets in baseball. Correa was charged with violating five counts of the CFAA. The application of criminal law to the sports world is neither novel nor extreme, and there have been many other instances in which the government has taken a keen interest in criminal activity in the sports industry. For example, the federal government extensively investigated and prosecuted the use of performance enhancing drugs.⁸⁰ The New England Patriots' involvement in the so-called "Spygate" incident garnered significant political interest, with many calling for criminal prosecution.⁸¹ Currently, the Department of Justice is investigating MLB's international signing practices.⁸²

Correa worked for the Cardinals from 2009 until he was charged in 2015. During the beginning of his tenure with the Cardinals, Correa worked closely with Jeff Luhnow and Sig Mejdal. His relationship with Mejdal, in particular, was contentious—the two were considered "rivals" who engaged in "heated disputes."⁸³

In December of 2011, the Astros hired Luhnow as General Manager. In January of 2012, Luhnow brought Mejdal along to head the Astros' analytics

⁷⁹ 18 U.S. Code § 1832(a) ("Whoever, with intent to convert a trade secret . . . to the economic benefit of anyone other than the owner thereof, and intending or knowing that the offense will, injure any owner of that trade secret, knowingly" misappropriates a trade secret through an enumerated act shall be subject to punishment).

⁸⁰ See, e.g., *Congress Asks DOJ to Prove Whether Clemens Lied Under Oath*, ASSOCIATED PRESS (Feb. 27, 2008), <http://www.espn.com/mlb/news/story?id=3267163>; Del Quentin Wilber & Ann E. Marimow, *Roger Clemens Acquitted of All Charges*, WASH. POST (June 18, 2012), https://www.washingtonpost.com/local/crime/roger-clemens-trial-verdict-reached/2012/06/18/gJQAQxvzIV_story.html?noredirect=on&utm_term=.9ee2ce9e4c42.

⁸¹ Horovitz, *supra* note 65, at 324 n.101 ("Given the level of Congressional attention Spygate and other sports stories have received recently, the notion of federal prosecution hardly seems farfetched.").

⁸² Jon Werthem, *Exclusive: The Evidence that Persuaded U.S. Department of Justice to Investigate MLB Recruitment of Foreign Players*, SPORTS ILLUSTRATED (Oct. 2, 2018), <https://www.si.com/mlb/2018/10/02/fbi-investigation-mlb-atlanta-braves-los-angeles-dodgers>.

⁸³ See Sentencing Memo of the United States at 4, *United States v. Correa*, No. 4:15-CR-00679 (S.D. Tex. July 21, 2016).

department.⁸⁴ Mejdal, a NASA engineer, was brought in to “make sense of all the new data that [was] becoming available for assessing ballplayers.”⁸⁵ When Mejdal left the Cardinals, he was directed to hand over his computer and password to Correa.⁸⁶ At the time, the Astros and Cardinals were division rivals.⁸⁷ While Luhnow and Mejdal were with the Cardinals, the analytics staff used a database tool called “Red Bird Dog,” and Luhnow and Mejdal “had clear ideas of what they wanted after using [that] system.”⁸⁸ At the Astros, the two went on to build Ground Control, which housed “a variety of confidential data, including scouting reports, statistics, and contract information, all to improve the team’s scouting, communication, and decision-making for every baseball-related decision.”⁸⁹ The system, which takes “variables and weights them according to the values determined by the team’s statisticians, physicist, doctors, scouts and coaches,” was referred to as the “repository of the organization’s collective baseball knowledge—the Astros’ brain.”⁹⁰

When Mejdal left to join the Astros, he used a password similar to the one he had used while working at the Cardinals.⁹¹ Correa guessed the new password and accessed Mejdal’s Ground Control and email accounts.⁹² In March of 2013, Correa viewed scouting information, including the Astros’ scouts’ rankings of all players eligible for the 2013 Amateur Draft, a weekly digest page which listed statistics and notes on the performance and injuries of players whom the Astros were considering drafting, other web pages containing the Astros’ evaluations of the Cardinals’ prospects, and notes on trade discussions.⁹³ In June of 2013, the day before the 2013 Amateur Draft, Correa sorted the Astros’ draft page to see which prospects the Astros rated highest, as well as other scouting reports.⁹⁴ Before day three of the Draft, Correa viewed the draft page to look for players not yet drafted, including the page

⁸⁴ Brian McTaggart, *Astros Hire Luhnow as General Manager*, MLB (Dec. 8, 2011, 12:10 AM), <http://wap.mlb.com/hou/news/article/2011120826126688/>; Brian McTaggart, *Analyze This: Astros’ Mejdal Takes on Unique Role*, MLB (Jan. 31, 2012, 11:37 AM), <http://wap.mlb.com/hou/news/article/2012013126525316/>.

⁸⁵ Green, *supra* note 67.

⁸⁶ Sentencing Memo, *supra* note 83, at 2.

⁸⁷ The Astros and Cardinals were both members of the National League Central division before the Astros moved to the American League in 2013.

⁸⁸ Drellich, *supra* note 2.

⁸⁹ Plea Agreement at 7, *United States v. Correa*, No. 4:15-CR-00679 (S.D. Tex. July 21, 2016).

⁹⁰ Green, *supra* note 67.

⁹¹ Plea Agreement, *supra* note 89, at 8.

⁹² *Id.*

⁹³ *Id.*

⁹⁴ Sentencing Memo, *supra* note 83, at 3.

of Adam Nelubowich, whom the Cardinals drafted later that day, and three players the Cardinals had drafted the day before.⁹⁵ On July 31, 2013, the day of the non-waiver trade deadline, Correa again accessed Ground Control to view trade discussions between the Astros and other teams.⁹⁶

On March 8, 2014, the *Houston Chronicle* published an in-depth article about Ground Control.⁹⁷ In response, the Astros enhanced their security precautions by changing Ground Control's URL and requiring Ground Control users to change their passwords. The team reset the database to a system-wide default password, which was emailed to users. However, since Correa had access to Mejdal's email, he also gained access to the new URL and default password. Correa used this information to access Luhnow's account, viewing 118 web pages containing confidential information specifically relating to players the Astros were targeting in the 2014 Amateur Draft. Correa also viewed the "task page" for the Astros' analytics department, which "listed the projects that the department was researching."⁹⁸ In March of 2014, Correa allegedly leaked embarrassing confidential information about the Astros' trade discussions to *Deadspin*, a sports blog. In so doing, Correa allegedly sought retaliation for a recent *Sports Illustrated* article, which praised Luhnow and Mejdal's reportedly outstanding analytical methods and predicted that the Astros would win the 2017 World Series.⁹⁹ During these unauthorized intrusions, Correa used software to conceal his identity, his location, and the type of device he was using.

In December of 2014, Correa was promoted to Director of Scouting, where his duties involved scouting and the amateur draft—areas in which his access to Ground Control would have been particularly relevant. Though the government only charged Correa with accessing Ground Control on five occasions, the prosecution's sentencing memo alleges that Correa in fact accessed Ground Control on forty-eight occasions, using the accounts of five different Astros employees.¹⁰⁰ The sentencing memo further states that Correa improperly accessed Mejdal's email account over a two-and-a-half-year span.¹⁰¹

⁹⁵ *Id.* at 4.

⁹⁶ Plea Agreement, *supra* note 89, at 9.

⁹⁷ Drellich, *supra* note 2.

⁹⁸ Plea Agreement, *supra* note 89, at 10.

⁹⁹ See Sentencing Memo, *supra* note 83, at 6 (describing the *Deadspin* leak).

¹⁰⁰ *Id.* at 1.

¹⁰¹ *Id.*

Correa claimed he was looking at Ground Control because he believed that the Cardinals' proprietary data had been "improperly transferred to the Astros' system by former Cardinals employees who had been hired by the Astros"¹⁰² and asserted the Astros had replicated "key algorithms and decisions tools" created by the Cardinals.¹⁰³ No charges were ever brought against the Astros.

Correa waived indictment and pleaded guilty to five counts of "Unauthorized Access of a Protected Computer" under the CFAA for intrusively accessing the Astros' database from March 2013 to June 2014.¹⁰⁴ Correa was sentenced to forty-six months in prison and ordered to pay criminal monetary penalties, including over \$279,000 in restitution to the Astros.¹⁰⁵ In addition, the MLB Commissioner ordered the Cardinals to give the Astros their top two draft picks in the 2017 Draft and pay the Astros \$2,000,000, the maximum punitive fine that the MLB Commissioner has the authority to direct pursuant to the MLB Constitution.¹⁰⁶

While Correa pleaded guilty under the CFAA, could he have also been convicted under the EEA? Correa did not appropriate the operational code of Ground Control itself, nor did he appropriate Ground Control's algorithms used to evaluate input data. Instead, he took the analytical conclusions generated by Ground Control—that is, the *results* produced by the system. It seems clear that such results would fit the EEA's definition of a "trade secret."

First, the content which Correa accessed falls within the types of information listed in section 1839(3). The rankings which the Astros assigned to players whom they were interested in drafting are analogous to those provided in *Rang*, and the

¹⁰² *Ex Parte* Motion for Issuance of Subpoena & Prehearing Production of Materials at 1, United States v. Correa, No. 4:15-CR-00679 (S.D. Tex. July 21, 2016) (recounting Correa's statement made at arraignment); *see also* Rearraignment at 9:8-24, United States v. Correa, No. 4:15-CR-00679 (S.D. Tex. July 21, 2016).

¹⁰³ Derrick Goold, *Correa Gives His Account of Hacking Case*, ST. LOUIS POST-DISPATCH, Feb. 1, 2017, at B1.

¹⁰⁴ Plea Agreement, *supra* note 89, at 1.

¹⁰⁵ Judgment in a Criminal Case, *supra* note 1, at 3, 6.

¹⁰⁶ Tom Verducci, *Lax Hack Smack: MLB, Rob Manfred Let Cardinals off Easy in Hacking Scandal*, SPORTS ILLUSTRATED (Jan. 30, 2017), <https://www.si.com/mlb/2017/01/30/cardinals-astros-hacking-chris-correa>. *See generally* MAJOR LEAGUE CONST. art. II, § 3, *available at* <http://www.law.uh.edu/assignments/summer2009/25691-b.pdf> ("In the case of conduct by Major League Clubs, owners, officers, employees or players that is deemed by the Commissioner not to be in the best interests of Baseball, punitive action by the Commissioner for each offense may include . . . a fine, not to exceed \$2,000,000 . . .").

scouting reports, trade discussions, and medical reports that Correa accessed would qualify as “business information” within the meaning of the EEA.

Second, the Astros took several “reasonable measures” to keep their information secret, as required by section 1839(3). Ground Control was not only protected by a password, but this password was reset after the *Houston Chronicle* article, showing that the organization was actively vigilant in protecting its system. Additionally, certain functions were only permitted to be used by certain employees. For example, Correa’s bouts of unauthorized access involved intruding into the accounts of two minor league players who, according to the government’s sentencing memorandum, had more limited access than other personnel.¹⁰⁷ Prior to Correa’s hacking, Luhnnow said that the team was taking “as many measures as we can to protect the information,” such as walling off access, inhibiting the ability to download the data, and logging users’ activity on the system.¹⁰⁸

Third, the information in Ground Control derived “independent economic value” from not being generally known or ascertainable through “proper means.” The government argued, and the court agreed, that “the deliverable from all of [the scouting] expenses was the information that they put in” Ground Control.¹⁰⁹ As the government noted, in order to diminish the strong likelihood that years and money will be fruitlessly invested in talented individuals who never end up graduating to major-league caliber, teams have poured increasingly massive amounts of resources into the consideration of which players to acquire.¹¹⁰ The Astros’ proprietary data that was stored in Ground Control was only economically valuable because it was not generally known to other baseball teams. By developing its own tools and metrics, the Astros were able to better evaluate talent, thereby gaining a competitive edge over other teams. Analogizing the secrecy-based value of proprietary sabermetrics, one journalist contended that Correa’s actions were “tantamount to

¹⁰⁷ Sentencing Memo, *supra* note 83, at 5.

¹⁰⁸ Joshua Green, *My Time with the Architect of the Astros’ ‘Ground Control,’* BLOOMBERG BUSINESSWEEK (June 16, 2015, 3:47 PM), <https://www.bloomberg.com/news/articles/2015-06-16/my-time-with-the-architect-of-the-astros-ground-control-database>.

¹⁰⁹ Rearraignment, *supra* note 102, at 11:8-9.

¹¹⁰ Responses to Defendant’s PSR Objections at 6, *United States v. Correa*, No. 4:15-CR-00679 (S.D. Tex. July 21, 2016).

stealing the secret formula for Coke.”¹¹¹ The plea agreement asserts that the intended loss to the Astros was \$1.7 million.¹¹²

Further, the data Correa accessed related to a product intended for use in interstate commerce. As discussed above, baseball, as a form of viewable entertainment in which tickets are sold and marketing is conducted throughout the country, is a product of interstate commerce.¹¹³

Compared to satisfying section 1839’s definition of a “trade secret” and section 1832’s interstate commerce requirement, the EEA’s mens rea element would likely be more difficult to prove. This may explain why the government refrained from pursuing charges under the EEA. Correa proffered that his intent was not to injure the Astros for his own benefit but to assess whether the Astros had stolen information from the Cardinals.¹¹⁴ Had the government prosecuted Correa under the EEA and had his case proceeded to trial, Correa may have argued that he did not intend to injure the Astros or convert it for his or the Cardinals’ benefit.¹¹⁵ There may have been no conclusive evidence that Correa intended to injure the Astros.

That said, such intent could be inferred from the fact that Correa allegedly leaked the Astros’ confidential trade discussions to *Deadspin*—a move which inflicted foreseeable reputational damage on the Astros and seemed to serve no purpose other than to injure and embarrass. Also, as the government pointed out in its sentencing memorandum, the information Correa looked at did not relate to the Cardinals, but rather included the Astros’ trade discussions with other teams. Such trade discussions had no bearing on whether the Astros stole information from the

¹¹¹ Green, *supra* note 108.

¹¹² Plea Agreement, *supra* note 89, at 4. The prosecution reached the \$1.7 million figure by taking the number of players Correa viewed “by 200,” dividing that by the number of players that were eligible to be drafted and multiplying by the scouting budget of the Astros that year. *See* Rearrangement, *supra* note 102, at 10:22-11:4. The actual monetary loss incurred by Correa’s victims was established as just over \$279,000, and this substantially smaller figure was pertinent to the determination of Correa’s sentence pursuant to the U.S. Sentencing Guidelines.

¹¹³ *See* Flood v. Kuhn, 407 U.S. 258, 282 (1972) (“Professional baseball is a business and it is engaged in interstate commerce.”).

¹¹⁴ Goold, *supra* note 103.

¹¹⁵ In his guilty plea, Correa conceded that he acted with intent to injure the Astros. *See* Plea Agreement, *supra* note 89, at 10 (“The Parties agree that the defendant’s intended loss under the U.S. Sentencing Guidelines definition for all of his intrusions is \$1.7 million.”). Conceding that he acted with intent may have been a condition of his guilty plea. However, it does not bear on how Correa would have argued had his case proceeded to trial.

Cardinals, suggesting that Correa's intent was to injure the Astros (and not to assess whether the Astros had stolen information from the Cardinals).

Moreover, Correa personally benefited from the hack insofar as he was promoted to Director of Scouting in 2014. The specific content Correa accessed in the Astros' Ground Control database was directly related to drafting and scouting, which were areas core to Correa's new job responsibilities. As the prosecution highlighted in its court filings, Correa's access to Ground Control gave him the ability to "corroborate his judgment calls" by "check[ing] what another analytics-minded organization thought."¹¹⁶ In addition, Ground Control enabled Correa to know which projects the Astros found promising and which they discarded.

Two principle questions remain. First, why did the prosecution not bring charges against the Cardinals as well? The Commissioner clearly saw it fit to sanction the organization through a fine and loss of draft picks. Further, it would have been possible to introduce evidence that Correa acted within the scope of his employment, thus making the Cardinals liable pursuant to the doctrine of respondeat superior. Perhaps because the government knew that MLB had its own internal mechanisms for disciplining and fining clubs, there was less of a need for the government to impose its own sanctions.

Second, why did the government not prosecute Correa under the EEA? Certainly, the CFAA charge was the more straightforward claim to pursue since the EEA has a more intricate mens rea requirement. As previously mentioned, to succeed on an EEA charge, the prosecution would need to establish that the defendant (i) *intended* to convert the trade secret for the benefit of someone other than the owner; (ii) *intentionally* or *knowingly* injured the owner; and (iii) *knowingly* misappropriated the trade secret through one of the delineated unauthorized acts.¹¹⁷ Further, the prosecution would have had to prove that the content which Correa accessed on the Astros' Ground Control constituted a trade secret. It is possible that the Astros were reluctant to reveal information about Ground Control, especially given the media scrutiny. Indeed, the prosecution "agreed to a more restrained sentence," including the decision not to add additional charges such as aggravated identity theft,¹¹⁸ and noted that the plea agreement was "the product of extended negotiations between the parties, both of whom made concessions over several

¹¹⁶ Responses to Defendant's PSR Objections, *supra* note 110, at 6.

¹¹⁷ 18 U.S.C. § 1832(a) (2012).

¹¹⁸ Responses to Defendant's PSR Objections, *supra* note 110, at 7 ("[T]he parties agreed that a more restrained sentence was appropriate, so they agreed on the loss calculations and the sophisticated means enhancement, and to not charge aggravated identity theft.").

months.”¹¹⁹ While the prosecution specifically noted that they chose not to charge Correa with aggravated identity theft, there is no discussion of the EEA. Declining to charge Correa under the EEA may have been part of the prosecution’s strategy of taking a lenient posture in order to reach a plea deal.

II.

THERE ARE POLICY REASONS TO APPLY THE ECONOMIC ESPIONAGE ACT TO TRADE SECRET THEFT IN BASEBALL

Ground Control is not the exception in the baseball industry. Many teams have similar databases that house information used to make player-related decisions, including the Cardinals (who have since moved on from Red Bird Dog but refuse to disclose the name of their new system),¹²⁰ the Boston Red Sox (Beacon),¹²¹ and the Cleveland Indians (DiamondView).¹²²

Correa was charged under the CFAA for accessing the Astros’ database “without authorization.” In so doing, the prosecution neglected the heart of the wrong Correa committed. The prosecution failed to address the true focus of Correa’s misdeeds—not the *means* of accessing the information (a problem which brings to mind questions of password sharing discussed in *United States v. Nosal*¹²³), but the proprietary nature and *use* of the information itself. This point is underscored by the fact that Correa accessed Ground Control not via the use of technical skill but rather by receiving Mejdal’s password when Mejdal turned over his computer upon leaving the Cardinals. Because Mejdal failed to significantly change his password, Correa had an easy means of entry.

¹¹⁹ *Id.*

¹²⁰ See Derrick Goold, *MLB Commissioner: Teams Need to Protect Intellectual Property*, ST. LOUIS POST-DISPATCH (Nov. 10, 2015), https://www.stltoday.com/sports/baseball/professional/birdland/mlb-commissioner-teams-need-to-protect-intellectual-property/article_4c2ed647-65e6-5edd-b17a-e3cdcf510fd3.html (“The Cardinals have long since abandoned ‘Red Bird Dog’ for an internal database whose nickname they don’t even want to share.”).

¹²¹ Alex Speier, *Red Sox to Retire ‘Carmine,’* BOS. GLOBE, Feb. 23, 2017, at D.1.

¹²² Alex Kaufman, *Moneyball, Before Moneyball Was Cool*, ESPN: SWEETSPOT (June 7, 2014), <http://www.espn.com/blog/sweetspot/print?id=48166>.

¹²³ *United States v. Nosal*, 844 F.3d 1024 (9th Cir. 2016). In *Nosal*, an employee gave former employees her password so they could continue to access the company’s confidential database. *Nosal* was convicted under the CFAA, and as Judge Reinhardt noted in his dissent, the application of the CFAA to this scenario had the potential to criminalize broader types of password sharing. *Nosal*, 844 F.3d at 1048 (Reinhardt, J., dissenting).

Correa's case provides an important lesson concerning the nature of the intellectual property risks which baseball teams face. The main threat is not from "outside" hackers who illicitly *access* computer databases but from those already embedded within the industry who impermissibly *use* secret information. Accordingly, the EEA, which focusses on the impermissible *use* of secret information, addresses the risks faced by baseball teams more directly than does the CFAA, which focusses on the illicit *access* from outside hackers. The importance of this shift is driven home by a few considerations.

A. The Fluidity of Personnel in Baseball Creates a High Risk for Misappropriation

While employee turnover is a common feature of many industries, the fluidity of baseball operations staff is practically a definitional feature of the baseball industry.¹²⁴ Just as a player is traded from team to team, front office staff routinely move from team to team as well. The Milwaukee Brewers' baseball operations department provides one example. The team's current General Manager, David Stearns, joined the Brewers from the Houston Astros, and he had previously worked for the Cleveland Indians, New York Mets, and Pittsburgh Pirates. The team's Assistant General Manager, Matt Arnold, had stints with the Tampa Bay Rays, Los Angeles Dodgers, Texas Rangers, and Cincinnati Reds. The team's senior advisor, Doug Melvin, had prior experience with the Rangers, Baltimore Orioles, and New York Yankees. Taken together, Stearns, Arnold, and Melvin alone have inside experience with one third of the league, including two division rivals.¹²⁵

An examination of the thirty General Managers at the start of the 2018 season reveals that nine have worked for four or more teams, and thirteen have worked for two or three teams.¹²⁶ While that leaves eight General Managers who have only worked for one franchise, every team has baseball operations department staff with experience working for multiple teams.¹²⁷

¹²⁴ See Dean Pelletier, *Trade Secrets: Extra Edges on the Diamond*, PELLETIER L. (Mar. 8, 2015), <http://www.pelletier-ip.com/?p=197> (calling employee mobility "part of the fabric of all professional sports").

¹²⁵ 2018 MILWAUKEE BREWERS MEDIA GUIDE 10-12 (Mike Vassallo et al. eds.).

¹²⁶ See *infra* Appendix.

¹²⁷ Data was compiled using each team's 2018 Media Guide. Employees holding the title of "General Manager" were included in this study. The Boston Red Sox's Dave Dombrowski, the Miami Marlins' Michael Hill, and the Baltimore Orioles' Dan Duquette were included in this study, as those three teams do not employ anyone with the title "General Manager."

This “incestuous shuffling of scouting and front office talent” poses a serious risk to teams that have developed proprietary data systems.¹²⁸ The information one team has in assessing players is directly applicable to the core business of a competitor team.

At first glance, increasing criminal enforcement of trade secret laws produces undesirable consequences, such as a restricting employee mobility. Limits on employee movement within an industry can have “detrimental effects on innovation, market competition, and economic growth,”¹²⁹ because preventing “talented individuals from standing upon the shoulder of giants, sharing knowledge, and making use of their human capital,” harms innovation.¹³⁰ Thus, perhaps using the CFAA would be less detrimental to employee mobility and the cross-pollination of ideas because the CFAA focuses on the access to that information rather than how it is used. However, as discussed above, Correa’s case illustrates why the CFAA is inadequate on other grounds. The statute’s vague notions of what constitutes “hacking” fails to address what society wishes to express as the true harm of Correa’s actions. We do not want to punish Correa solely because he guessed a password. Rather, we want to punish Correa because he used that password to give his team an illicit and illegal competitive advantage.

Further, concerns over the EEA restricting employee mobility in baseball are overstated. First, because the EEA includes such a high mens rea requirement, trade secret prosecutions would be brought sparingly in baseball. Under the EEA, the prosecution must establish as to each element of the crime that the defendant (i) intended to convert a trade secret to the economic benefit of someone other than the owner, (ii) intended or knew that such conversion would injure the owner of the trade secret, and (iii) knowingly misappropriated the trade secret through one of the delineated unauthorized acts.¹³¹ Given the EEA’s demanding mens rea requirement,

¹²⁸ Ben Lindbergh, *Baseball’s Ever-Expiring Secrets*, RINGER (Feb. 6, 2017, 11:49 AM), <https://www.theringer.com/2017/2/6/16036642>.

¹²⁹ Orly Lobel, *The New Cognitive Property: Human Capital Law and the Reach of Intellectual Property*, 93 TEX. L. REV. 789, 835 (2015).

¹³⁰ *Id.*; see also Cohen, *supra* note 57, at 229 (“Diminished labor mobility is costly not only for individual workers, but for the nation as a whole. The economy is at its most efficient when workers are able to take their labor where the market would value it most highly.” (internal citations omitted)).

¹³¹ 18 U.S.C. Code § 1832(a) (2012) (“Whoever, with intent to convert a trade secret . . . to the economic benefit of anyone other than the owner thereof, and intending or knowing that the offense will, injure any owner of that trade secret, knowingly” misappropriates a trade secret through an enumerated act shall be subject to punishment).

prosecutors will likely only go after those with a truly “evil-meaning mind.”¹³² That is, employees moving between organizations without “evil-meaning minds” will not have to fear prosecution. Still, as with any criminal statute, prosecutorial discretion will ultimately reign supreme on when and whether these cases will be brought.

Second, baseball teams already have internal mechanisms in place to stifle employee fluidity and movement, meaning that any chilling effect on employee mobility from the EEA would be relatively unpronounced. Among other mechanisms, teams require employees to ask for permission before interviewing with another MLB team. These rules stem from the prohibition against tampering “with negotiations or dealings respecting employment” found in the Official Professional Baseball Rules Book.¹³³ The rule reads:

[T]here shall be no negotiations or dealings respecting employment, either present or prospective, between any player, coach or manager and any Major or Minor League Club . . . unless the Club or baseball employer with which the person is connected shall have, in writing, expressly authorized such negotiations or dealings prior to their commencement.¹³⁴

On its face, the provision extends to “managers,” a term which, along with individual team policies, could be and has been broadly interpreted to encompass a host of employees.¹³⁵ Although individual teams’ employee policies are generally not public information, there have been some media reports of teams amending their employee policies in response to employees getting poached by other teams. For example, in 2011, the Toronto Blue Jays amended their employee policy so that employees in their baseball operations department would not be granted permission to interview with other teams for positions that did not represent a promotion from

¹³² *Morissette v. United States*, 342 U.S. 246, 251 (1952).

¹³³ OFFICE OF THE COMM’R OF BASEBALL, THE OFFICIAL PROFESSIONAL BASEBALL RULES BOOK, R. 3(k) (2018) [hereinafter MLB RULES BOOK], <https://registration.mlbpa.org/pdf/MajorLeagueRules.pdf>.

¹³⁴ *Id.*

¹³⁵ For an example of an investigation into tampering regarding a team’s manager, see Associated Press, *MLB Rules No Tampering Found in Cubs’ Hiring of Joe Maddon*, ESPN (Apr. 29, 2015), http://www.espn.com/chicago/mlb/story/_/id/12787877.

their current position.¹³⁶ Teams generally have a “widely observed policy of letting other clubs interview their employees for positions that would represent promotions.”¹³⁷ Even so, in some rare cases teams have exercised this power in restricting employees from interviewing with other teams even if the employee would be offered a promotion.¹³⁸ Given the general trend of vast movement of executives between teams, this system still seems largely perfunctory. Nonetheless, the system shows that the industry is trying to put its thumb on the scale against employee movement, thereby overshadowing any theoretical chilling effect the EEA may have on employee mobility.

Third, even assuming that the EEA would stymie employee mobility, this would not necessarily harm the baseball industry. Limiting employee fluidity may in fact be healthy for the industry. Sports are built on the notion of discovering who has the best competitive strategy and advantage. Sharing ideas between teams breaks down the fundamental competitive fabric and function of the system. Unlike industries which may provide for a more concrete connection to economic growth, public utility, or the public good, sports are a gratuitous demonstration of who can outcompete whom, who can come up with the best strategy, and who can win a game. Professional sports are built on the fundamental idea of secret gamesmanship. Unlike in other industries where employees working together across companies may enhance the public good, employees sharing secrets in sports undermines the gamesmanship of the sport, harms the public’s confidence in the integrity of the game, and reeks of collusion. Furthermore, the confined and unique nature of the sports industry lessens costs to innovation that may be more harmful in other settings.

The Correa case is one example of the effects of employee turnover, both from a psychological and competitive perspective. Correa’s psychological paranoia resulting from Luhnnow and Mejdal’s departure allegedly led him to access Ground Control. It was not ludicrous of Correa to worry that Luhnnow and Mejdal may have taken proprietary information with them—as one commentator noted, “the secrets were inside their heads.”¹³⁹ Even a *Houston Chronicle* article that predated the

¹³⁶ Doug Harrison, *Jays Amend Employee Policy to Quell Farrell Rumours*, CBC SPORTS (Oct. 25, 2011, 12:39 PM), <http://www.cbc.ca/sports/baseball/mlb/jays-amend-employee-policy-to-quell-farrell-rumours-1.1050694>.

¹³⁷ Lindbergh, *supra* note 128.

¹³⁸ For example, the Chicago White Sox denied then Assistant General Manager Rick Hahn permission to interview for General Manager of the Seattle Mariners.

¹³⁹ Lindbergh, *supra* note 128.

Correa case alluded to this phenomenon, noting that “were a member of the Astros front office to leave, some of the team’s operating secrets would leave with them.”¹⁴⁰

Moreover, the Correa case illustrates what a competitor can do once this type of data is acquired. Among numerous occasions, Correa accessed Ground Control on three key instances: right before and during the 2013 Amateur Draft and the day of the non-waiver trade deadline. By accessing Ground Control on these dates, Correa was able to see the players in which the Astros were interested as well as gain more information in assessing the Cardinals’ own picks. For example, Correa accessed scouting information for a pitcher, Marco Gonzales, who was the Cardinals’ first-round draft pick.¹⁴¹

It remains to be seen whether teams will take the Correa case as a cautionary tale. The Commissioner, Rob Manfred, insinuated that there must be a shift in the way teams think about guarding proprietary data, noting that “30 years ago intellectual property in this business was what some GM carried around in his head and he was going to take it with him when he left There wasn’t much you could do about that. Today the business has changed.”¹⁴² Implicit in the Commissioner’s statement is an acknowledgment that some secrets cannot be kept simply due to the fluidity of the industry. His statement points to a worry of hackers accessing data, not leaks from a team’s own employees. However, the idea that the threat does not come from employees changing teams is misguided, as Correa was only able to gain access to the Astros’ database because Mejdal gave Correa his old password.

Luhnow himself condoned some type of misappropriation, saying “if someone leaves, they’re allowed to take . . . anything they remember in their head.”¹⁴³ The Director of Baseball Research for the Minnesota Twins echoed this sentiment, saying “if they can remember it you cannot stop them from taking it.”¹⁴⁴

Accordingly, some argue that the EEA does criminalize “theft by memory.”¹⁴⁵ The idea of theft of trade secrets by memory is not wholly foreign. Under state law,

¹⁴⁰ Drellich, *supra* note 2.

¹⁴¹ Responses to Defendant’s PSR Objections, *supra* note 110, at 4.

¹⁴² Bill Shaikin, *Former Cardinals Executive Pleads Guilty, Admits Hacking Astros’ Computers*, L.A. TIMES (Jan. 8, 2016, 6:54 PM), <http://www.latimes.com/sports/sportsnow/la-sp-sn-cardinals-chris-correa-astros-20160108-story.html>.

¹⁴³ Drellich, *supra* note 2.

¹⁴⁴ Lindbergh, *supra* note 128.

¹⁴⁵ Geraldine Szott Moohr, *The Problematic Role of Criminal Law in Regulating Use of Information: The Case of the Economic Espionage Act*, 80 N.C. L. REV. 853, 878 (2002) (“The

several state courts have held that memorizing trade secrets constitutes a basis for civil liability.¹⁴⁶ For example, in *Stampede Tool Warehouse, Inc. v. May*,¹⁴⁷ former employees of an automotive equipment distributor argued their “taking” of the company’s customer list could not be a violation of the Illinois Trade Secrets Act¹⁴⁸ because they memorized the list instead of physically or digitally taking the information. The court disagreed, holding: “[a] trade secret can be misappropriated by physical copying or by memorization. . . . Using memorization to rebuild a trade secret does not transform that trade secret from confidential information into non-confidential information.”¹⁴⁹ Though state courts, under state trade secret laws, have imposed civil sanctions on those who misappropriate trade secrets via memorization, to date, criminal liability has been mostly limited to theft of information in a tangible medium.¹⁵⁰

Nonetheless, the literal language of the EEA suggests that prosecuting theft by memorization could be even easier than prosecution under most state trade secret laws. First, the definition of trade secrets under the EEA is broader than that of the UTSA. The EEA says information can be a trade secret “*whether* or how stored, compiled, or memorialized,”¹⁵¹ whereas the UTSA lacks such elaboration.¹⁵² The fact that a trade secret need not be stored or memorialized under the EEA points to an expansive definition of intangible objects as trade secrets. Further, the EEA provides that one who “communicates[] or conveys such information” without authorization, has committed a prohibited activity.¹⁵³ This suggests there is no requirement that a person must physically or electronically take trade secrets to be prosecuted under the EEA. The UTSA contains no such language. Thus, the EEA seems to contemplate the risk of misappropriation via memorization more than state laws do. Further,

EEA may be read to protect trade secrets that exist only in the mind of the holders against misappropriation through memorization of another.”).

¹⁴⁶ See, e.g., *Allen v. Johar, Inc.*, 823 S.W.2d 824 (Ark. 1992); see also *Ed Nowogroski Ins. v. Rucker*, 971 P.2d 936 (Wash. 1999).

¹⁴⁷ *Stampede Tool Warehouse, Inc. v. May*, 651 N.E.2d 209 (Ill. App. Ct. 1995).

¹⁴⁸ 765 ILL. COMP. STAT. ANN. 1065/1-9 (West 2017).

¹⁴⁹ *Stampede Tool Warehouse, Inc.*, 651 N.E.2d at 217.

¹⁵⁰ Cohen, *supra* note 57, at 227 (“[M]ost [states] appear to limit criminal liability to cases in which there has been some kind of physical taking and do not require employees to wipe clean the slates of their memories.” (internal quotation marks omitted)).

¹⁵¹ 18 U.S.C. § 1839(3) (2012) (emphasis added).

¹⁵² UNIF. TRADE SECRETS ACT § 1(4) (amended 1985), 14 U.L.A. 438 (1990) (“‘Trade secret’ means information, including a formula, pattern, compilation, program, device, method, technique, or process . . .”).

¹⁵³ 18 U.S.C. 1832(a)(2).

despite the fact that the statute has undergone numerous amendments since its enactment, Congress has done nothing to clarify this potential ambiguity.

Still, although the language of the EEA is amenable to criminalizing the memorization and disclosure of trade secrets, the EEA—in practice—has not been used to prosecute such conduct (perhaps because criminal sanctions for this type of misappropriation would “unduly endanger legitimate and desirable economic behavior”¹⁵⁴). Turning to the EEA’s legislative history, theft by memory was not the type of misappropriation Congress had in mind.¹⁵⁵ Although a section of the EEA was removed during reconciliation which said that “the general knowledge and experience that a person gains from working at a job is not covered,”¹⁵⁶ this language was removed because Congress found it “unnecessary and redundant.”¹⁵⁷ Remembering information from one’s previous job is often an incidental fact to employee movement, and society may not view this behavior as culpable enough to warrant criminal sanctions.

Coupled with the lack of prosecution under the EEA for trade secret theft by memorization, baseball industry executives have taken a seemingly permissive attitude towards such conduct, thereby creating uncertainty as to when society should deem this behavior wrongful. Limited information sharing is tolerated in baseball culture. For example, one unnamed R&D Director noted that scouts often trade advance reports in exchange for favors or simply as an act of kindness among industry friends.¹⁵⁸ Teams openly admit that the reason they hire analysts is often because of the projects said analysts have worked on with a competitor.¹⁵⁹ While baseball executives have deemed some information sharing impermissible, where they seem to draw the line (as to what trade secret misappropriation they consider wrongful versus what they consider permissible), they seem to do so arbitrarily with no grounding in any legal framework. For example, while one unnamed executive said that copying source code to a Dropbox would constitute prosecutable behavior,

¹⁵⁴ 142 CONG. REC. S12,213 (daily ed. Oct. 2, 1996) (Managers’ Statement for H.R. 3723, The Economic Espionage Bill).

¹⁵⁵ *Id.* at S12,212 (daily ed. Oct. 2, 1996) (statement of Sen. Kohl) (“[W]e do not want this law used to stifle the free flow of information or of people from job to job.”).

¹⁵⁶ *Id.*

¹⁵⁷ *Id.* at S12,213 (Managers’ Statement for H.R. 3723, The Economic Espionage Bill).

¹⁵⁸ Lindbergh, *supra* note 128.

¹⁵⁹ *Id.* (“Most of the time in offices that are more inclusive by nature you will be exposed to the development and actual usage of the systems you develop and as such when you leave you take that with you. In fact, in most cases that is part of the reason you are being hired to begin with.” (quoting the former General Manager of the Colorado Rockies, Dan O’Dowd)).

they opined that if a developer still had access to code in his or her email and used that for a new team, that would be a “gray area.”¹⁶⁰

This permissive approach is misguided. Uncertainty as to conduct that companies deem improper has a detrimental effect on ex ante behavior and destroys any prospect for notice or ability to shape expectations as to what type of information teams value, what type of conduct is permitted, and what employees can take with them should they—or perhaps more accurately, when they—switch employers. The necessary normative guidance that shapes employee behavior is lacking in the baseball industry, so the threat of criminal prosecutions may be necessary to discourage misconduct that harms competition and fair play, on and off the field. Accordingly, the EEA can and should provide guidance to employees over what type of behavior should be considered wrongful.

B. How Disputes Are Resolved in the Absence of Criminal Sanctions

A wide variety of internal disputes in MLB are subject to arbitration clauses. If the controversy involves disciplining a player, the league is required to go to arbitration as prescribed in the collective bargaining agreement with the MLB Players Association.¹⁶¹ For disputes involving two teams, the Major League Baseball Constitution (“MLB Constitution”) sets forth arbitration procedures. The latter is more applicable for cases of trade secret theft. The MLB Constitution states:

All disputes and controversies related in any way to professional baseball between Clubs . . . (including . . . owners, officers, directors, employees and players) . . . shall be submitted to the Commissioner, as arbitrator, who, after hearing, shall have the sole and exclusive right to decide such disputes and controversies and whose decision shall be final and unappealable.¹⁶²

The Commissioner also has the separate power to impose punitive action on “Major League Clubs, owners, officers, employees or players” for any conduct “deemed by the Commissioner not to be in the best interests of Baseball.”¹⁶³

¹⁶⁰ *Id.*

¹⁶¹ 2017–2021 Collective Bargaining Agreement Between Thirty Major League Clubs and the Major League Baseball Players Association art. XIII (Dec. 21, 2016), <http://www.mlbplayers.com/pdf9/5450407.pdf>.

¹⁶² MAJOR LEAGUE CONST. art. VI, § 1, available at <http://www.law.uh.edu/assignments/summer2009/25691-b.pdf>.

¹⁶³ *Id.* art. II, § 3.

Any action a team might seek to take against another team for the misappropriation of trade secrets by a former employee (i.e., under a state trade secrets law) would be subject to the arbitration clause of the MLB Constitution. Because teams are precluded from entering the courts to adjudicate these disputes, criminal law, where appropriate, could fill the gap. The fact that there is a separate system for internal discipline may lead some to believe that the need for criminal prosecution is reduced (or perhaps completely eliminated), as the league has come up with its own way for handling these types of disputes. However, the record of punishments imposed upon teams under the arbitration framework is sparse and opaque,¹⁶⁴ and the Commissioner is under no duty to disclose the punishments imposed.¹⁶⁵ Arbitration eliminates the advantage of the public process and transparency the legal system brings to the resolution of these disputes. Further, the standards in a criminal trial (i.e., beyond a reasonable doubt) in conjunction with the extensive mens rea requirements (especially for the EEA) allow for a more rigorous and thorough investigation of the issue than does private arbitration between teams.

Unlike civil disputes which fall within MLB's mandatory arbitration rules, criminal prosecutions under the EEA would be adjudicated in the courts. In failing to prosecute EEA violations in the context of baseball, prosecutors have, in effect, empowered MLB to define the scope of trade secret law in baseball and to relegate such disputes to private arbitration. This is contrary to the will of the legislature, which has elected to make trade secret theft a crime. As discussed above, baseball teams—many which feel powerless to stop the sharing of proprietary information in the face of the industry's employee fluidity—generally take a permissive attitude towards information leaving an organization when employees move teams. Where a private industry feels powerless to stop wrongful behavior is precisely where the criminal law should step in, not where the criminal law should stand down. Section 1832 of the EEA was written with this kind of misappropriation in mind. The importance of this information was underscored by Senator Herbert H. Kohl, when he said: “[B]usinesses spend huge amounts of money, time, and thought developing proprietary economic information This information is literally a business's

¹⁶⁴ Michael McCann, *Breaking Down Chris Correa's Prison Sentence For Hacking Astros*, SPORTS ILLUSTRATED (July 18, 2016), <https://www.si.com/mlb/2016/07/18/cardinals-chris-correa-hacks-astros-prison-sentence> (“The record of team punishments is fairly barren.”).

¹⁶⁵ See, e.g., Matt Snyder, *MLB Rules on Red Sox-Yankees Sign Stealing and Fines Both Teams*, CBS SPORTS (Sep. 15, 2017), <https://www.cbssports.com/mlb/news/mlb-rules-on-red-sox-yankees-sign-stealing-and-fines-both-teams/> (discussing fines of an “undisclosed amount” levied on the Red Sox and Yankees in a recent dispute over sign-stealing).

lifeblood. And stealing it is the equivalent of shooting a company in the head.”¹⁶⁶ Teams should not resign to letting their trade secrets, into which they have invested time and money, be taken to other teams. There may be more of a “league-think” attitude in baseball as opposed to other industries since each team is part of a larger collective, but undermining the competitive nature of the sport by allowing employees to bring proprietary information with them when they leave a team will eventually disincentivize teams from investing in these types of program and harm the league more than help it.

Finally, the reality is that prosecutors tend to use the EEA sparingly, often only in “egregious and ‘open-and-shut’ cases.”¹⁶⁷ The Correa case likely meets the elements set out by the EEA and would have been a good opportunity for the government to use the EEA in a high-profile case to both publicize the EEA and more concretely broaden trade secret protection in sports.

C. Conventional Methods of Protecting Trade Secrets Are Ineffective

Though teams use many conventional tactics which qualify as reasonable precautions to keep information secret under the EEA, such methods are inadequate to stop the misappropriation of proprietary information on their own. One tactic that teams take is walling off certain information from certain employees.¹⁶⁸ This approach has several pitfalls. First, it does nothing to address what occurs when the General Manager, who is not walled off from any information, moves teams (which, as discussed above, is common practice). Second, creating “information silos” is bad for cooperation and employee morale.¹⁶⁹ It also leads to fewer people making more decisions and increases the likelihood of error.¹⁷⁰ Third, the baseball industry is highly reliant on the use of interns. The sheer number of low level analysts who cycle through an organization makes walling off difficult. As one former Yankees baseball operations intern noted, the number of interns was often so high that there

¹⁶⁶ 142 CONG. REC. S740 (daily ed. Feb. 1, 1996) (statement of Sen. Kohl).

¹⁶⁷ Halligan, *supra* note 32, at 499.

¹⁶⁸ Drellich, *supra* note 2 (“There are ways to protect yourself by making sure that people have access to the data that they only need to make the decisions in the area.” (quoting Luhnnow)).

¹⁶⁹ Lindbergh, *supra* note 128 (“It creates real morale issues in the staff if they are walled off from things, particularly once you get into director and higher levels. Everyone doesn’t need to know every piece of information, but if you start excluding department heads from certain things in the fear that they might leave, you are sort of inviting them to leave for somewhere else where they will be more involved and more trusted.” (quoting an unnamed executive)).

¹⁷⁰ *Id.* (“A walled-off employee can’t make as many direct contributions, and the smaller the pool of potential peer reviewers, the more likely it is that mistakes will survive.”).

were “more interns than office space.”¹⁷¹ Further, as fewer (or no) criminal prosecutions are brought, the onus will be on the team to come up with more effective ways to prevent the misappropriation of proprietary information. As a result, teams may wall off more data from certain employees, stifling an organization’s synergy and ability to perform to its full potential.

Alternatively, teams may turn to contract law. The two types of contractual provisions generally used to protect trade secrets—non-disclosure agreements and non-compete agreements—may be inadequate in the context of professional baseball. Non-competes are especially problematic since they receive vastly different treatment from state to state. This could put teams in states which generally prohibit non-competes, such as California (where five teams, or one sixth of the league, are located), at a significant disadvantage.¹⁷² Further, a breach of these agreements would not be adjudicated in the courts. As mentioned above, disputes between teams (for example, an employee disclosing a trade secret in violation of a non-disclosure agreement) are subject to the MLB Constitution’s mandatory arbitration clause. Accordingly, inter-team disputes over non-disclosure agreements would not receive the protections and additional sanctions available through the legal system.

III. ON-FIELD TACTICS

One commentator called Correa’s actions a “high-tech version of what’s been going on forever in baseball—stealing signals.”¹⁷³ This comment illustrates the potential for complex legal questions to arise if the government more aggressively prosecutes the misappropriation of information in this context. In baseball, the ubiquity of sign-stealing has essentially been baked into the game.¹⁷⁴ In baseball, a

¹⁷¹ *Id.*

¹⁷² Grow & Grow, *supra* note 4, at 1618.

¹⁷³ Tyler Kepner, *Former Cardinals Executive Pleads Guilty to Hacking Astros*, N.Y. TIMES (Jan. 8, 2016), <https://nyti.ms/1OVuZDk>.

¹⁷⁴ See, e.g., Tim Kurkjian, *Sign-Language Hidden Cameras, Phony Signals, Double-Dealing Espionage. No This Isn’t the CIA—We’re Talking About the Game Within the Game of Baseball*, SPORTS ILLUSTRATED (July 28, 1997), <https://www.si.com/vault/1997/07/28/8115901/sign-language-hidden-cameras-phony-signals-doubled dealing-espionage-no-this-isnt-the-ciawere-talking-about-the-game-within-the-game-of-baseball> (quoting former Minnesota Twins Manager Tom Kelly saying that “stealing signs is part of the job”); Scott Lauber, *Dustin Pedroia Downplays Scandal: ‘Don’t Think This Should Be News,’* ESPN (Sept. 6, 2017), http://www.espn.com/mlb/story/_/id/20609320/dustin-pedroia-boston-red-sox-insists-sign-

sign is when a manager, coach, or player performs a series of physical movements (i.e., touching his hat, nose, or ear) to instruct the player to run a certain play (i.e., stealing a base or putting down a bunt).¹⁷⁵ Though in some situations, stealing signs could technically meet the standard under the EEA or other trade secret statutes, such on-field tactics should not be subject to adjudication in the courts.

A. Non-Verbal Signals Could Meet the Definition of a Trade Secret

The EEA definition specifically provides that the information does not have to be tangible. Though this was likely added to address digital forms of information, hand signals used during a game are a type of intangible business information. Although the signal is displayed in public, the meaning of the signal is not public information nor is the timing as to when the play will be deployed. The secrecy is key to the successful implementation. If a team knows what is coming, it can prepare to counteract that move. Some coaches create decoy signs in which they add a slight variation to the sign so the player knows that play should not actually be implemented. This can help assess the extent to which the signs have been compromised. The timing is also imperative. Even if a player can anticipate what type of pitch will be thrown, the timing of knowing exactly when that pitch will be thrown is where the value of the secret lies. Teams “closely guard . . . the various signals (hand, verbal, or otherwise) used by coaches to relay play calls to players during a game.”¹⁷⁶

Does a team stealing an opposing team’s signs constitute misappropriation of a trade secret within the meaning of the EEA? If the player notices that a change-up is thrown every time the catcher puts down four fingers and communicates that to the batter while he is standing on second base, did he knowingly steal information? This scenario likely fails to meet the requirement of misappropriation. Rather, it is more akin to reverse engineering. Reverse engineering is when one “start[s] with [a] known product and work[s] backward to divine the process which aided in its

stealing-part-game (quoting the Boston Red Sox’s Dustin Pedroia calling sign-stealing “part of the game”).

¹⁷⁵ For a more thorough explanation of the history and different variations of signs in baseball, as well as how each element of the UTSA and EEA may be applied to sign-stealing, see Andrew G. Barna, Note, *Stealing Signs: Could Baseball’s Common Practice Lead to Liability for Corporate Espionage?*, 8 BERKELEY J. ENT. & SPORTS L. (forthcoming 2019).

¹⁷⁶ See Grow & Grow, *supra* note 4, at 1579; see also, Barna, *supra* note 175, at 19-20 (“Per industry practice, MLB teams take many measures to protect their signs. They use false signs, change signs throughout the game, change signs after players get traded, ensure the pitcher is not ‘tipping’ his signs, and speed up the pitcher’s delivery.”).

development or manufacture.”¹⁷⁷ Here, the player used public information and decoded what the signal meant based on his powers of observation, thereby not acquiring the secret by improper means.¹⁷⁸ Although stealing signs in the manner described is technically “sign-stealing,” it is very common and is not something the criminal law or government should have a hand in.

However, a distinction must be made between signs that are stolen via the naked eye and signs stolen via the aid of other devices. There have been several cases of “sign-stealing” in which teams used more sophisticated means of acquiring the signs than merely observing signals and their outcomes. Teams have used various technologies and devices to decode or intercept signs, such as the use of video cameras or binoculars. In football, where teams communicate plays via electronic headsets, some teams have used electronic means of eavesdropping on these conversations. While non-video sign-stealing is an accepted part of the game, the use of other devices has been treated more seriously. In fact, while there is no official rule against sign-stealing in the MLB Rulebook, MLB issued a memo to clubs in 2001 specifically prohibiting the use of electronic equipment in connection with sign-stealing¹⁷⁹ (and the MLB Commissioner can punish teams for any conduct that is not in the “best interests” of baseball under the Rule Book¹⁸⁰). This prohibition against the use of other devices in connection with sign-stealing was reiterated by Commissioner Manfred in 2017.¹⁸¹ Another example comes from professional football, where the New England Patriots videotaped New York Jets coaches sending signals to their players during a game. It was not the stealing of the signs that got the Patriots in trouble but the fact that they did so using a camera.¹⁸²

In 2017, the Yankees filed a claim with the Commissioner alleging that members of the Red Sox staff watching the game in the clubhouse used Apple Watches to communicate with training staff in the dugout about what signs the Yankees were using. Through a series of signals, the Yankees further alleged, the

¹⁷⁷ *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 476 (1974).

¹⁷⁸ Delineating the line between misappropriation and superior knowledge or an educated guess is a common difficulty in the criminal law, especially in the insider trading context. *See, e.g.*, *SEC v. Steffes*, 805 F. Supp. 2d 601 (N.D. Ill. 2011).

¹⁷⁹ Ken Rosenthal, *Red Sox Crossed a Line and Baseball’s Response Must Be Firm*, *ATHLETIC* (Sept. 5, 2017), <https://theathletic.com/94995/2017/09/05/red-sox-crossed-a-line-and-baseballs-response-must-be-firm/>.

¹⁸⁰ *MLB RULES BOOK*, *supra* note 133, at R. 21(f).

¹⁸¹ Robert D. Manfred, Jr., *Commissioner’s Statement Regarding Red Sox-Yankees Violations*, *MLB* (Sept. 15, 2017), <https://www.mlb.com/news/c-254435818>.

¹⁸² *See generally* Horovitz, *supra* note 65.

Red Sox training staff in the dugout then communicated this information to their players at the plate. The Red Sox filed a claim in response alleging that the Yankees used its camera from its regional sports network, YES, to steal signs during the game as well. Both teams were fined an “undisclosed amount” by the Commissioner.¹⁸³

B. The Legal System Should Not Be Involved in Adjudicating Disputes over On-Field Misappropriation

On-field tactics like sign-stealing should not be subject to the criminal law, whether it is done with the naked eye or with the help of an electronic device. This is because there is a difference between illegal behavior and “gamesmanship.”¹⁸⁴ Unlike the stealing of sabermetric data or scouting reports, which have a corollary to the broader business world and are akin to the types of material Congress sought to protect when enacting the EEA, policing what is “against the rules” in a sporting event is no place for the judiciary. Sign-stealing is not only a common practice but has also been “lauded as good coaching.”¹⁸⁵ As one law professor argues, “nothing done on the field of play is cheating. What happens on the field, even if it violates the rules of the game, is still the game.”¹⁸⁶

Questionable on-field tactics—even when done through sophisticated means like cameras or other equipment—are more appropriate for the disciplinary mechanisms built into the league’s arbitration forums. As it relates to on-field play, some level of “cheating” is accepted, and it should be up to those in charge of policing the sport, not judges, to delineate what is proper.¹⁸⁷

Additionally, the sign must “derive[] independent economic value.”¹⁸⁸ While stealing signs can give teams a meaningful competitive edge¹⁸⁹ and some

¹⁸³ Scott Lauber, *Red Sox, Yankees Fined Separate as Part of MLB Investigation Into Sign-Stealing*, ESPN (Sept. 15, 2017), http://www.espn.com/mlb/story/_/id/20716110/boston-red-sox-new-york-yankees-fined-separately-part-mlb-investigation-sign-stealing (discussing the Commissioner’s determination that there was “insufficient evidence” to back the Red Sox claim against the Yankees, but nonetheless fined the Yankees after uncovering evidence that the Yankees had engaged in improper conduct in connection with the use of a dugout phone in a previous season).

¹⁸⁴ Horovitz, *supra* note 65, at 327 (“The blurring of the cheating-gamesmanship line is of paramount legal importance—the former is intuitively misappropriation, the latter proper.”).

¹⁸⁵ *Id.* at 318 (internal quotation marks omitted).

¹⁸⁶ *Id.*

¹⁸⁷ *Id.* at 328-29 (“It would be difficult for courts to accurately determine what is proper or improper in a world governed by unwritten laws that are hardly unanimous.”).

¹⁸⁸ 18 U.S.C. § 1839(3)(B) (2012).

¹⁸⁹ Barna, *supra* note 175, at 5.

commentators believe “a sports play can be just as valuable to a sports team as a product, design, formula, or process may be to a manufacturing corporation or product developer,”¹⁹⁰ it would be more difficult to quantify how much a specific play is “worth” to the business. In contrast, the time, money and effort put in to creating analytical databases is easier to calculate and more congruent to what trade secret law was designed to protect.¹⁹¹ Thus, a line should be drawn between “conduct primarily affect[ing] the integrity of the game” and conduct relating to the business of the enterprise and the information and programs a team creates, which “more closely align with business concerns.”¹⁹² In his note, Andrew Barna puts forth several other policy reasons against adjudicating sign-stealing in the courts, including the fact that signs can be changed easily and at a minimal cost, the customary nature of sign-stealing within the game, and the Commissioner’s ability to impose penalties—such as loss of draft picks—which courts may not impose.¹⁹³

IV. THE FUTURE OF SPORTS DATA

The data that Correa accessed included several players’ private medical records. Though keeping medical records is nothing new, teams have been pouring more resources into refining and leveraging this type of data. Every team now has in-house sabermetricians,¹⁹⁴ meaning the competitive advantage teams once gained from using sabermetrics has been reduced. As one consultant noted, “by the time someone has taken a statistical method elsewhere, has been able to implement it and is in a position to use that information to influence the decision-making of other teams, we would probably be onto the next thing.”¹⁹⁵ While sabermetric analysis has become the lifeblood of every team, injury avoidance mechanisms have become a

¹⁹⁰ Ferrelle, *supra* note 40, at 167.

¹⁹¹ Horovitz, *supra* note 65, at 329 (“[T]he core focus of trade secret law is still the business world.”).

¹⁹² *Id.* at 330. (“[T]he more conduct is directly related to business (that is, the more it is removed from pure athletic competition), it not only more closely aligns itself with the core justifications for trade secret protection but it also becomes easier and more natural for courts to classify as proper or improper.”).

¹⁹³ Barna, *supra* note 175, at 22.

¹⁹⁴ Ben Lindbergh & Rob Arthur, *Statheads Are the Best Free Agent Bargains in Baseball*, FIVETHIRTYEIGHT (Apr. 26, 2016, 11:04 AM), <https://fivethirtyeight.com/features/statheads-are-the-best-free-agent-bargains-in-baseball/>.

¹⁹⁵ Lindbergh, *supra* note 128 (quoting director of analytics Jesse Smith).

greater priority.¹⁹⁶ To that end, teams have turned to biometric data to recapture the competitive edge that was once secured through the early adoption of statistical analysis.

If teams can better harness data to identify the factors that put players at risk for injury, they will have a significant advantage. As injuries derail careers (and cost teams millions of dollars), any informational edge in preventing them is coveted. One focus has been on the jarring increase in tears in the ulnar collateral ligament (“UCL”) of pitchers.¹⁹⁷ UCL tears take on average a period of twelve to sixteen months for recovery, but they can take as many as thirty months.¹⁹⁸ These injuries “keep a tremendous amount of money in the dugout.”¹⁹⁹

The monitoring systems many teams are beginning to use are extensive and invasive. For example, the Seattle Mariners work with Fatigue Science to monitor player sleeping habits. Players wear wristbands, which were originally developed by the U.S. military to measure fatigue in pilots and soldiers.²⁰⁰ Teams “speak only in vague terms about their efforts, fearful of publicizing any experiment that could become a competitive advantage,” which shows that teams are taking steps to keep these procedures secret and see some economic value in them.²⁰¹ Other examples include the use of harnesses to document “heart rate variability, respiration rate, activity and calories burned”²⁰² and arm sleeves embedded with 3D sensors to measure the force on the elbow joint of each throw.²⁰³

¹⁹⁶ Associated Press, *Putting Data Science on the Pitcher’s Sleeve*, N.Y. TIMES (Apr. 2, 2016), <https://www.nytimes.com/2016/04/03/sports/baseball/putting-data-science-on-a-players-sleeve.html> (quoting Glenn Fleisig calling biometric data collection “the next sabermetrics”).

¹⁹⁷ Jonah Keri, *The Tommy John Epidemic: What’s Behind the Rapid Increase of Pitchers Undergoing Elbow Surgery*, GRANTLAND (March 10, 2015), <http://grantland.com/the-triangle/tommy-john-epidemic-elbow-surgery-glenn-fleisig-yu-darvish/> (twenty-five percent of major league pitchers and fifteen percent of minor league pitchers in 2015 had Tommy John Surgery to repair the ulnar collateral ligament, and more pitchers had the surgery in 2014 than all of the 1990s).

¹⁹⁸ *Tommy John FAQ*, MLB: PITCH SMART, <http://m.mlb.com/pitchsmart/tommy-john-faq/> (last visited Dec. 20, 2017).

¹⁹⁹ Joe Greenberg, *Q&A: New Cubs ‘Saberist’ Tom Tango*, ESPN (Jan. 30, 2013), <http://www.espn.com/blog/chicagocubs/print?id=14619>.

²⁰⁰ Brian Costa, *Baseball’s Fight with Fatigue*, WALL ST. J. (Feb. 23, 2015, 12:45 PM), <https://www.wsj.com/articles/baseballs-fight-with-fatigue-1424710560>.

²⁰¹ *Id.*

²⁰² *The Sports Industry’s New Power Play: Athlete Biometric Data Domination*, SPORTTECHIE (March 3, 2017), <https://www.sporttechie.com/the-sports-industrys-new-power-play-athlete-biometric-data-domination/>.

²⁰³ Grow & Grow, *supra* note 4, at 1578.

The collection and analysis of athletes' biometric data raises ethical and privacy questions that are outside the scope of this paper.²⁰⁴ For example, should employers be allowed to keep this kind of information private if it could lead to innovative breakthroughs in preventing injury in the future? If a team discovers a way to minimize or completely avoid the prevalence of a certain kind of injury, should there be a duty to disclose this information so players can protect themselves?²⁰⁵ What are the ramifications if this information gets stolen? Should the precautions employers take to maintain the secrecy of this data differ from those taken for their normal statistical talent evaluations given the private nature of the data collected?

The collection, disclosure, and storage of biometric data would likely implicate other federal laws such as the Health Insurance Portability and Accountability Act of 1996 (HIPAA)²⁰⁶ and the Genetic Information Non-Discrimination Act of 2008 (GINA).²⁰⁷ Further, some states, such as Illinois, have enacted laws relating to employer collection of biometric data. The Illinois Biometric Information Privacy Act (BIPA) requires private entities to "store, transmit, and protect from disclosure all biometric identifiers and biometric information using the reasonable standard of care within the private entity's industry."²⁰⁸ BIPA and similar laws could require teams to implement higher safeguards for the protection of player biometric data than merely protecting their databases with passwords, lest they be subject to liability for inadequately securing biometric data. As long as medical information is housed in the same place as other player data,²⁰⁹ as was the case with Ground Control, teams should be motivated to strengthen the precautions they take for all their collectively-stored property. As the gathering of this data becomes more widespread and the benefits of its collection become clearer, the law will need to confront novel questions relating to protecting biometric data.

²⁰⁴ For a discussion of the ethical and privacy issues surrounding the collection of athletes' biometric data, see *id.* at 1619-20.

²⁰⁵ See *id.* at 1620.

²⁰⁶ Health Insurance Portability and Accountability Act of 1996, Pub. L. No. 104-191, 110 Stat. 1936 (codified in scattered sections of 26, 29, and 42 U.S.C.).

²⁰⁷ Genetic Information Nondiscrimination Act of 2008, Pub. L. No. 110-233, 122 Stat. 881 (codified in scattered sections of 26, 29, and 42 U.S.C.).

²⁰⁸ 740 ILL. COMP. STAT. ANN. 14/15 (West 2017).

²⁰⁹ For example, Correa viewed medical pages that were housed in Ground Control for 1B/DH/LF Conrad Gregor and 1B Chase McDonald. See Responses to Defendant's PSR Objections, *supra* note 110, at 1.

CONCLUSION

Although Correa was not charged under the EEA, he was ultimately sentenced to a significant amount of time in prison. Nonetheless, the changes over the last two decades in baseball—which have transformed the industry into one obsessed with the collection and analysis of data—show the need for greater legal protection of expensive and labor-intensive proprietary systems, such as Ground Control. Though teams take a somewhat relaxed attitude toward the realities of information sharing when employees switch teams, stronger trade secret protection in baseball is necessary to maintain the public's confidence in the integrity of the game. The EEA provides one way for the government to stop the misappropriation of this kind of information as personnel move from team to team. The criminal law may not have a place on the baseball field, but it certainly has a place inside the office.

APPENDIX²¹⁰

²¹⁰ Thank you to Mike Passanisi for helping design this image.

BASEBALL'S FLUID TALENT POOL

General managers generally move from team to team, usually having spent many years working around the league, bringing with them that team's institutional knowledge and strategy.

FIVE TEAMS

These three general managers have each worked for five different organizations.



DAVE DOMBROWSKI

President of Baseball Operations
Boston Red Sox



JERRY DIPOTO

General Manager
Seattle Mariners



DAVID STEARNS

General Manager
Milwaukee Brewers



FOUR TEAMS

An additional six general managers have each worked for four different organizations over their baseball tenures.



Alex Anthopoulos

General Manager
Atlanta Braves



Dan Duquette

General Manager
Baltimore Orioles



Matt Klentak

General Manager
Philadelphia Phillies



Thad Levine

General Manager
Minnesota Twins



A.J. Preller

General Manager
San Diego Padres



Mike Rizzo

General Manager
Washington Nationals

QUICK FACTS...

26.6%



(EIGHT OF 30)

Percentage of
current GMs that have
worked for only one team
or organization

30%



(NINE OF 30)

Percentage of
current GMs that have
worked for at least four
teams

43.3%



(13 OF 30)

Percentage of
current GMs that have
worked for two to three
different teams