



2015

Law School Culture and the Lost Art of Collaboration: Why Don't Law Professors Play Well with Others

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Law School Culture and the Lost Art of Collaboration: Why Don't Law Professors Play Well with Others, 93 Neb. L. Rev. 547 (2015)

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Michael I. Meyerson*

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I. INTRODUCTION

I have an Erdős number. Specifically, I have an Erdős number of 5.

For the uninitiated, the concept of an “Erdős number” was created by mathematicians to describe how many “degrees of separation” an author of an article is from the great mathematician Paul Erdős.¹ If you coauthored a paper with Erdős, you have an Erdős number of 1. If you coauthor a paper with someone with an Erdős number of 1, you have earned an Erdős number of 2. Coauthoring a paper with someone with an Erdős number of 2 gives you an Erdős number of 3, and so on.

In 2010, I wrote an article on law and statistics in 2010 with my son, William Meyerson.² He had previously written an article with Scott T. Chapman, who had written one with Lara K. Puwell, who in turn had coauthored a piece with Zsolt Tuza, who had actually written an article with Paul Erdős.³ Thus, William has an Erdős number of 4, which garners me an Erdős number of 5.

I quickly discovered that I was not alone in feeling a sense of pride for having an “Erdős number.”⁴ But as I thought about the path one must follow to earn a coveted Erdős number, I began to understand that the mathematical community views collaborative work in a vastly different manner than the legal academy where I have spent my career.⁵ In mathematics, it is expected that one will coauthor numerous pieces throughout one’s career. In the law school culture, by contrast, coauthorship, while not unknown, is not a significant part of the academic tradition.

This Article grew out of that insight. I wanted to explore whether my intuitive sense of these different attitudes towards collaboration was reflected empirically by a differing amount of coauthorship in the

1. JEFFREY A. ZILAHY, A CULTURAL PARADOX: FUN IN MATHEMATICS 43 (2010). Erdős is pronounced “AIR-dosh.” Gina Kolata, *Paul Erdős, 83, a Wayfarer In Math’s Vanguard, Is Dead*, N.Y. TIMES, Sept. 24, 1996, at A1.
2. Michael I. Meyerson & William Meyerson, *Significant Statistics: The Unwitting Policy Making of Mathematically Ignorant Judges*, 37 PEPP. L. REV. 771 (2010).
3. To find the links necessary to calculate my Erdős number, I used the calculator at: MICROSOFT ACADEMIC SEARCH, <http://academic.research.microsoft.com/VisualExplorer#3037799&1112639> (last visited October 8, 2014), archived at <http://perma.unl.edu/4RZ2-T7CC?type=live>.
4. See, e.g., MARK BUCHANAN, NEXUS: SMALL WORLDS AND THE GROUNDBREAKING THEORY OF NETWORKS 35 (2003) (“It is a matter of some pride to mathematicians to talk about their ‘Erdős number.’”). Of course, the lower the Erdős number the better; see ALBERT-LÁSZLÓ BARABÁSI, LINKED: THE NEW SCIENCE OF NETWORKS 47 (2002) (“A low Erdős number is a matter of pride . . .”).
5. I certainly am not the only law professor with an Erdős number. For example, Andrew Martin of the University of Michigan, previously of the Washington University School of Law, has an Erdős number of 3. *Dean Andrew D. Martin*, UNIV. OF MICH. COLL. OF LITERATURE, SCI., & THE ARTS, <http://sites.lsa.umich.edu/admart/> (last visited October 8, 2014), archived at <http://perma.unl.edu/V84-DYK2>.

two fields, and, if so, what might be the reasons for such a difference.⁶ Finally, I wanted to explore whether there are lessons legal academics can learn from their counterparts in mathematics in terms of creating a culture that not only accepts but encourages coauthorship.

The second Part of this Article discusses how mathematicians produced a culture of collaboration. I focus on the extraordinary career of Paul Erdős, and show how he helped create a social academic environment in which coauthorship is valued. The third Part explores the very different culture in legal academe. I begin the Part by exploring the disconnect between the individualistic culture of law schools and the collaborative culture of the legal community at large. I then discuss my study of legal coauthorship, which demonstrates that law professors collaborate at a rate much lower than their mathematical colleagues. Next, I explore the benefits that law professors and their students could gain from collaboration. The Article concludes with a consideration of some proposals to help turn the law school culture into one where collaboration and coauthorship are respected and encouraged.

II. ERDŐS NUMBERS AND THE CREATION OF A CULTURE OF COLLABORATION

A. Paul Erdős and Erdős Numbers

Paul Erdős was born in Budapest, Hungary on March 26, 1913.⁷ He was a mathematical prodigy. Erdős discovered negative numbers by himself at age 3 when he subtracted 250 degrees from 100 degrees and came up with 150 degrees below zero; he was able to multiply 4-

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6. "Collaboration is a process that involves shared decision making by fellow collaborators; shared decision making allows for the development of ideas that then leads to emergent knowledge rather than to a simple summation of ideas." Susan Bryant, *Collaboration in Law Practice: A Satisfying and Productive Process For a Diverse Profession*, 17 VT. L. REV. 459, 460 (1993). Collaboration has also been defined as a "pervasive, long-term relationship in which participants recognize common goals and objectives, share more tasks, and participate in extensive planning and implementation." Dick Raspa & Dane Ward, *Listening for Collaboration: Faculty and Librarians Working Together*, in *THE COLLABORATIVE IMPERATIVE: LIBRARIANS AND FACULTY WORKING TOGETHER IN THE INFORMATION UNIVERSE 5* (Dick Raspa & Diane Ward. eds., 2000); see also Melissa J. Marlow, *Law Faculties: Moving Beyond Operating As Independent Contractors to Form Communities of Teachers*, 38 OHIO N.U. L. REV. 243, 245 (2011) ("I envision an atmosphere in which law faculty meet frequently to discuss overall learning objectives and coordination of experiential learning activities across the curriculum, generously share lesson plans and teaching ideas, . . . consistently engage in team teaching, and jointly determine whether learning objectives are being met.").
 7. The best biographies of Erdős are: PAUL HOFFMAN, *THE MAN WHO LOVED ONLY NUMBERS* (1998); N IS A NUMBER: A PORTRAIT OF PAUL ERDŐS (Zala Films 1993).

digit numbers in his head by the age of 4.⁸ While his mind was capable of engaging in the most abstract intellectual thought, Erdős had some difficulties navigating the physical world. He did not learn how to butter a piece of toast until he was 21 years old, never boiled water, and never owned a credit card.⁹

Erdős left Hungary in 1938, just before the beginning of World War Two.¹⁰ He obtained a tenure-track position at Notre Dame but was fired in 1954 during the McCarthy-era Red Scare. Erdős had close connections with people in Communist countries, including his mother in Hungary and fellow mathematicians in China, and he refused to condemn the teachings of Karl Marx.¹¹

Notre Dame was the last steady job Erdős held. From 1954 until his death in 1996, Erdős constantly travelled around the world, from one city to another, relying on local mathematicians to provide him with room and board.¹² In exchange, Erdős would assist in solving the problems his hosts were working on and share the problems he was investigating: “Just like the bumblebee goes from flower to flower, carrying its load of pollen, so [Erdős] goes from mathematical center to mathematical center with his problems and his information thereby being an agent of mathematical cross-fertilization.”¹³

Both out of necessity and personality, Erdős revolutionized the concept of collaboration in mathematics research. He found great joy in the shared exploration of a mathematical mystery: “For Paul Erdős, mathematics was a communal activity.”¹⁴ Erdős was also prolific. He published more than 1,400 papers on mathematics during his lifetime,

8. See László Babai, *Paul Erdős Just Left Town*, 45 NOTICES OF THE AM. MATHEMATICAL SOC'Y 66 (1998); Kolata, *supra* note 1.

9. HOFFMAN, *supra* note 7, at 21–22.

10. Babai, *supra* note 8, at 66.

11. *Id.*; see generally Karen Engle, *Constructing Good Aliens and Good Citizens: Legitimizing the War on Terror(ism)*, 75 U. COLO. L. REV. 59, 84 (2004) (“The ‘Red Scare’ during the McCarthy era contained a fear that even seemingly loyal citizens could be duped into joining the Communists.”).

12. “Erdős simply traveled from one mathematical center to another, sometimes seeking new collaborators, sometimes continuing a work in progress. His well-being was the collective responsibility of mathematicians throughout the world.” IVARS PETERSON, *THE JUNGLES OF RANDOMNESS: A MATHEMATICAL SAFARI* 41 (1998); see Babai, *supra* note 8, at 70–71.

13. N IS A NUMBER: A PORTRAIT OF PAUL ERDŐS, *supra* note 7. Within the span of a few months, Erdős had visited, or planned to visit, “Atlanta, Memphis, three cities in Texas, New Jersey, New Haven, Baton Rouge, Colorado, France, Germany, Kalamazoo, and Pennsylvania, in that order.” Jerrold W. Grossman, *Paul Erdős: The Master of Collaboration*, in 2 *THE MATHEMATICS OF PAUL ERDŐS* 467–75 (Ronald L. Graham et al. eds., 1997).

14. Ron Graham & Joel Spencer, *The Elementary Proof of the Prime Number Theorem*, 31 *THE MATHEMATICAL INTELLIGENCER* 18, 20 (2009).

a figure unmatched by anyone except perhaps Leonhard Euler, the legendary 18th century Swiss mathematician.¹⁵

As a result, Erdős collaborated on more papers with different mathematicians than had ever been done previously. “Collaboration on such a scale had never been seen before in mathematics”¹⁶ In fact, 511 authors can claim to have cowritten an article with Erdős.¹⁷ As mathematicians marveled at the extraordinary range of Erdős’s collaborators, they devised a mathematical way to analyze such collaboration.

The fortunate 511 mentioned previously, who had written a paper directly with Erdős, were given an Erdős number of 1.¹⁸ The coauthors of those with an Erdős number of 1, those who are designated as having an Erdős number of 2, currently total 9,268.¹⁹ There are more than 33,000 people with an Erdős number of 3 [that is, collaborators of those with an Erdős number of 2], and more than 80,000 with an Erdős number of either 4 or 5.²⁰

There are numerous compilations of famous people with Erdős numbers.²¹ Albert Einstein has an Erdős number of 2,²² Stephen Hawking’s Erdős number is 4,²³ and former Vice President Dick Cheney has an Erdős number of 7.²⁴

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15. M.E.J. Newman, *The Structure of Scientific Collaboration Networks*, 98 *PROC. NAT’L ACAD. SCI.* 404, 405 (2001).
 16. Ivars Peterson, *Groups, Graphs, and Erdős Numbers*, *SCI. NEWS* (June 9, 2004, 11:24 AM), <https://www.sciencenews.org/article/groups-graphs-and-Erdős-numbers>, archived at <http://perma.unl.edu/WB9L-VRHJ>.
 17. *Information About the Erdős Number Project*, OAKLAND UNIV., www.oakland.edu/enp/readme/ (last visited Apr. 13, 2014), archived at <http://perma.unl.edu/WC27-4QBM>.
 18. *Id.* Erdős himself is given an Erdős number of 0.
 19. *Id.*
 20. *Facts About Erdős Numbers and the Collaboration Graph*, OAKLAND UNIV., www.oakland.edu/enp/trivial/ (last visited Oct. 8, 2014), archived at <http://perma.unl.edu/J3ND-V7ZQ>. These calculations were made in 2004, so they probably understate the number of those with higher Erdős numbers considerably. It is estimated that the highest Erdős number is 13. *Id.*
 21. Or more precisely, “finite Erdős numbers,” since those who have not collaborated with anyone with an Erdős number are described as having “an Erdős number of infinity.” HOFFMAN, *supra* note 7, at 15.
 22. Grossman, *supra* note 13, at 467–75.
 23. *Some Famous People with Finite Erdős Numbers*, OAKLAND UNIV., www.oakland.edu/enp/erddpaths/ (last visited Oct. 8, 2014), archived at <http://perma.unl.edu/NP28-W29R>.
 24. Dick Cheney wrote an article published in the *American Political Science Review* “with Aage Clausen, who has coauthored with Greg Caldeira, who has coauthored with [Tim Groseclose], who has coauthored with Keith Krehbiel, who has coauthored with John Ferejohn, who has coauthored with Peter Fishburn, who has coauthored with Erdős.” TIM GROSECLOSE, *LEFT TURN: HOW LIBERAL MEDIA BIAS DISTORTS THE AMERICAN MIND* 263 n.1 (2011).

B. Collaboration and the Mathematical Culture

The extent of collaboration among mathematicians in general increased enormously during Erdős's career. A study of articles reviewed in *Mathematics Review* revealed that while over 90% of all papers reviewed in 1941 had just a single author, by the mid-1990s almost half of the reviewed articles had multiple authors.²⁵ Moreover, the number of mathematical articles with three or more authors also skyrocketed. In 1940, virtually no mathematical papers had more than two authors; by the end of the Twentieth Century, 10% of mathematical papers had three or more authors, and 2% had four or more authors.²⁶

Collaboration is now an intrinsic part of the culture of the mathematician. A quick review of those who have won the most prestigious prize in mathematics, the Fields Medal,²⁷ reveals the extent of collaboration of those at the pinnacle of their profession. In 2010, there were four Fields Medalists: Ngô Bao Châu, Elon Lindenstrauss, Stanislav Smirnov, and Cédric Villani. While each of these top mathematicians has published numerous solo articles, they have also collaborated on a significant percentage of their papers²⁸:

Châu	8 solo articles; 6 cowritten articles
Lindenstrauss	14 solo articles; 19 cowritten articles
Smirnov	6 solo articles; 18 cowritten articles
Villani	28 solo articles; 44 cowritten articles

In sum, the four Fields Medalists as a group wrote 56 solo articles and 87 cowritten articles. This means that over 60% of their articles have been coauthored.²⁹

The mathematical culture encourages this sort of coauthorship: "These days almost everyone collaborates."³⁰ The process of this collaboration belies the formality with which proofs are presented in mathematical journals:

When mathematics appear in print, it's formal and pure, it's theorem, proof, theorem, proof, corollary. But when we're doing mathematics it's a completely

25. Grossman, *supra* note 13, at 467–75.

26. *Id.*

27. The Fields Medal, which was named after a Canadian mathematician, John Charles Fields, is awarded every four years at the International Congress of Mathematicians to between two and four mathematicians under the age of forty. The Fields Medal is often called the "Nobel Prize of mathematics," since there is no actual Nobel Prize for mathematics. STEVEN GEORGE KRANTZ, *THE SURVIVAL OF A MATHEMATICIAN: FROM TENURE-TRACK TO EMERITUS* 133 (2009).

28. This table was compiled with the help of my mathematician coauthor, William Meyerson.

29. Interestingly, despite their extensive record of coauthorship, some of the more recent Fields Medalists have a relatively high Erdős number, with some having "only" an Erdős number of 9. Grossman, *supra* note 13, 467–75.

30. KRANTZ, *supra* note 27, at 95.

different thing. It's three or four people sitting around with cups of coffee, a pad of paper, throwing ideas back and forth, making a lot of wild conjectures, most of which turn out to be completely false.³¹

One mathematician has described the mathematical culture as, "very webby, with almost everybody talking to people who talk to people."³² There is a great irony that a field that is often characterized as one populated by asocial beings³³ has created what is actually an extraordinarily interactive culture. One mathematician noted that "[c]olleagues meet constantly to compare notes, discuss problems, look for hints, and work on proofs together. The abundance of conferences, symposia, workshops, colloquia, seminars, and other gatherings devoted to mathematical topics attest to a strong desire for interaction."³⁴

Mathematicians have succeeded in creating a culture in which collaboration is both expected and valued. They appreciate the social as well as academic benefits of collaboration.³⁵ The result is that currently, "mathematical research is a remarkably social process."³⁶

III. UNDERSTANDING THE LEGAL ACADEMY'S INDIVIDUALISTIC CULTURE

A. The Hidden Cost of Individualism

The legal culture, or more particularly, the legal academic culture, is quite different from its mathematical analogue.³⁷ While there will

31. N IS A NUMBER: A PORTRAIT OF PAUL ERDŐS, *supra* note 7 (quoting Scott Cassels). Another mathematician wrote that

I have written more than 150 papers, and at least half of them are joint . . . I generate new ideas naturally and with pleasure while drinking a beer with a colleague, while having a "math rap session" at the blackboard, while going for a hike, or in the debriefing after an interesting talk.

KRANTZ, *supra* note 27, at 96.

32. PETERSON, *supra* note 12, at 42.

33. One joke, often told by mathematicians themselves, is:

Q. How you can tell the difference between an extroverted mathematician and an introverted mathematician?

A. The extroverted mathematician stares at *your* shoes when he's talking to you.

This joke was retold in: *Life Imitates Math*, NPR (Feb. 26, 2010, 1:00 PM), <http://www.npr.org/templates/story/story.php?storyId=124115260>, archived at <http://perma.unl.edu/3GX9-AFKJ>.

34. Peterson, *supra* note 16.

35. See, e.g., REUBEN HERSH, WHAT IS MATHEMATICS, REALLY? 11 (1999) (saying that a mathematician "needs to discover a problem connected to the existing mathematical culture. Then she needs reassurance and encouragement as she struggles with it").

36. *Id.*

37. The word "culture" in this context means "the incentive structures and peer pressure, dominant rituals and unspoken habits of thought that construct and then

be exceptions within each law school, there is “a distinct and remarkably consistent culture in most American law schools.”³⁸ This culture, like other institutional cultures, is “constructed by the shared norms and the implicit rules of the game, the habits of thinking, and the mental models that frame how people interpret their experience.”³⁹ One effect of this culture is that, for many if not most of its participants, “law school feels like a world unto itself, a world with its own rules, rhythms, and rituals.”⁴⁰

While there are many aspects to this “world unto itself,”⁴¹ one significant feature is a focus on viewing legal work products as the result of primarily individual effort and hence a source of solely personal achievement: “The values we attend to in the classroom are apt to be individualism and autonomy, which we present as the basis for the

define the interpersonal, institutional and cognitive behaviors and beliefs of members of the educational community.” Susan Sturm & Lani Guinier, *The Law School Matrix: Reforming Legal Education in a Culture of Competition and Conformity*, 60 VAND. L. REV. 515, 519 (2007); see also Andrea M. Seielstad, *Unwritten Laws and Customs, Local Legal Cultures, and Clinical Legal Education*, 6 CLINICAL L. REV. 127, 136 (1999) (defining “local legal culture” as “the bundle of understanding, beliefs, values, perceptions, and expectations shared between a group of legal actors within a legal system.”); Janet Weinstein, *Coming of Age: Recognizing the Importance of Interdisciplinary Education in Law Practice*, 74 WASH. L. REV. 319, 329 (1999) (“Professions are mini-cultures . . . Professionals in any particular discipline have their own values, language, skills, and institutions that set them apart from other professions and people as a whole.”).

38. Marlow, *supra* note 6, at 248; see also Barbara Glesner Fines, *Competition and the Curve*, 65 UMKC L. REV. 879, 896 (1997) (“[L]aw schools are also powerful cultural agents themselves, amplifying these values as they distribute greater power and prestige to those who achieve the most under these competitive conditions.”). According to Professors Sturm and Guinier, the law school culture emerges from the adversarial idea of law that is inscribed in the dominant pedagogy. It is reinforced by the prevailing metrics of success, which rank students through relentless public competitions (for grades, jobs, law journals, moot court, and clerkships) and provide very little opportunity for feedback that encourages students to develop more contextually defined or internally generated measures of accomplishment. It is locked in by its resonance with the currency of success in the private bar—money. It is preserved by the detachment of faculty from students’ professional self-definition and reinforced by the primary way students learn—in class through questioning by professors in the presence of peers, when students perceive they have either won or lost the interaction. The culture of competition and conformity becomes an invisible but ubiquitous gravitational force affecting how students perceive the law and their place in it.
- Sturm & Guinier, *supra* note 37, at 519–20.
39. Institutional cultures are generally “those elements of a group or organization that are the most stable and least malleable.” EDGAR H. SCHEIN, *ORGANIZATIONAL CULTURE AND LEADERSHIP* 11 (3d ed. 2004).
40. *Id.*
41. This world incorporates “the norms and understandings of acceptable and desirable practice, inscribed and reinforced by rules, routines, incentives, rewards, and patterns of behavior.” Sturm & Guinier, *supra* note 37, at 522.

adversary system”⁴² Those values have led to what Professors Sturm and Guinier term law school’s “culture of competition and conformity.”⁴³

There are several forces that reinforce this individualistic culture.⁴⁴ First, law students learn more than just law from their professors. They also learn what it means to be a lawyer.⁴⁵ In terms of their psychological and intellectual development, “[p]robably the greatest role models for students are faculty members themselves.”⁴⁶ To the extent that law professors avoid collaboration,⁴⁷ so will their students.

Next, the nature of the typical large law school class, especially in the formative first year of law school, stresses the importance of individual performance.⁴⁸ The Socratic method, in which professors pose a series of questions to one student at a time, “creates a highly competitive environment.”⁴⁹ Not only are students forced to prepare and deliver their responses on their own, they are keenly aware that if they fail to give an adequate response they will either face additional

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42. Carrie J. Menkel-Meadow, *Can a Law Teacher Avoid Teaching Legal Ethics?*, 41 J. LEGAL EDUC. 3, 7 (1991); see also Tom Cobb & Sarah Kaltsounis, *Real Collaborative Context: Opinion Writing and the Appellate Process*, 5 J. ASS’N LEGAL WRITING DIRECTORS 156, 174 (2008) (“The law school experience can tend to make students think of law as a highly adversarial and competitive process.”); Marlow, *supra* note 6, at 247 (“[I]t is still safe to say that we teach students to be independent thinkers and learners.”); Michael Millemann, *The Symposium on the Profession and the Academy: Concluding Thoughts*, 70 MD. L. REV. 513, 521 (2011) (“[L]aw school culture prizes autonomy and tradition.”); Susan Sturm, *Law Schools, Leadership, and Change*, 127 HARV. L. REV. F. 49, 50 (2013) (“Law school cultures and curriculum tend to be highly individualistic and competitive . . .”).
 43. Sturm & Guinier, *supra* note 37, at 519–20; see also Bryant, *supra* note 6, at 486 n.109 (“Law schools traditionally stress individual competition.”); Vernellia R. Randall, *Increasing Retention and Improving Performance: Practical Advice on Using Cooperative Learning in Law Schools*, 16 T.M. COOLEY L. REV. 201, 216–17 (1999) (“With very few exceptions, law schools are overwhelmingly competitive learning environments.”).
 44. See Weinstein, *supra* note 37, at 333 (“[S]tudents acquire the attitudes and values of the profession in an ‘acculturation’ process.”).
 45. See Krista Riddick Rogers, Comment, *Promoting a Paradigm of Collaboration in an Adversarial Legal System: An Integrated Problem Solving Perspective for Shifting Prevailing Attitudes from Competition to Cooperation Within the Legal Profession*, 6 BARRY L. REV. 137, 155 (2006) (“[L]aw school is where the initial perceptions of future lawyers are formed.”).
 46. Kristin B. Gerdy, *Clients, Empathy, and Compassion: Introducing First-Year Students to the “Heart” of Lawyering*, 87 NEB. L. REV. 1, 58 (2009); see also SECTION OF LEGAL EDUC. & ADMISSIONS TO THE BAR, AM. BAR ASS’N, TEACHING AND LEARNING PROFESSIONALISM 16 (1996) (“Faculty must become more acutely aware of their significance as role models for law students’ perception of lawyering.”).
 47. See *infra* text accompanying notes 92–115.
 48. See Fines, *supra* note 38, at 905 (“Classroom dialogues often discourage student-to-student interaction outside our direct control.”).
 49. Randall, *supra* note 43, at 205.

personalized questioning or another student will swoop in to give the desired answer.⁵⁰

An additional aspect of law school that fortifies the culture of competition is the grading policy.⁵¹ Most law schools require their faculty “to apply some standardized mean or curve in awarding [their] grades.”⁵² Mandatory grade curves send the (accurate) message that success is only to be determined by besting your classmates, not by the absolute measure of your understanding.⁵³ As good grades are perceived as both the ticket to future employment as well as a measure of one’s ability as a lawyer, grade curves serve as a strong inducement for students to believe that individualistic achievement is the only route to success.⁵⁴

This is especially unfortunate as the legal world into which law students graduate requires the ability to work effectively as a member of a group.⁵⁵ Several studies have concluded that a critical component of “lawyering effectiveness” is “working with others.”⁵⁶ For example,

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50. See Clifford S. Zimmerman, “Thinking Beyond My Own Interpretation:” *Reflections on Collaborative and Cooperative Learning Theory in the Law School Curriculum*, 31 ARIZ. ST. L.J. 957, 972 (1999) (stating that the Socratic method involves “competitiveness insofar as it challenges the student to perform in class or else another student will be found who can”).
51. See Timothy W. Floyd et al., *Beyond Chalk and Talk: The Law Classroom of the Future*, 38 OHIO N.U. L. REV. 257, 269 (2011) (stating that modern legal education “is highly competitive and often adversarial due to mandatory curves and detailed class ranking”); see also Dorothy H. Evensen, *To Group or Not to Group: Students’ Perceptions of Collaborative Learning Activities in Law School*, 28 S. ILL. U. L.J. 343, 382 (2004) (quoting a law student as saying, “We’re competitors here because we’re trying to get as high on the rankings as possible. So there’s a hesitancy to get really too close, give too much away, or share too much.”); Rogers, *supra* note 45, at 146 (“A future lawyer’s mindset begins the transformation process toward an adversarial, competitive paradigm when students are compelled to compete for grades . . .”).
52. Fines, *supra* note 38, at 888.
53. See *id.* at 896 (“If a student asks a professor ‘How do I earn an A in this class?’ . . . [t]he truly honest answer is ‘Do more and better than 90% of your classmates in the exam answer.’”). On the other hand, grade curve policies arose out of the legitimate desire for uniform treatment of students, regardless of which teacher they had. Inconsistent grading may result from what Professor Fines indelicately terms concerns that some law faculty members will be “dishonest or incompetent.” *Id.* at 889.
54. See Mark V. Tushnet, *Evaluating Students as Preparation for the Practice of Law*, 8 GEO. J. LEGAL ETHICS 313, 313–14 (1995) (“The incentive structures legal educators create for first-year students, I believe, reinforce individualistic and meritocratic attitudes.”); see also Fines, *supra* note 38, at 905 (“One clear lesson of competitive grading systems is the ‘do-it-alone rule.’”).
55. *Id.* at 313 (“For most lawyers, the practice of law is a collaborative enterprise.”).
56. Marjorie Shultz & Sheldon Zedeck, *Predicting Lawyer Effectiveness: Broadening the Basis for Law School Admission Decisions*, 36 LAW & SOC. INQUIRY 620, 650 (2011). Based on survey results, the author listed other factors that are important to lawyer effectiveness. These factors include: work, organizing and managing others (staff/colleagues), negotiation skills, speaking, listening, ability to see

one recent survey of “highly respected health law attorneys in Atlanta” revealed a universal desire for the attorneys they hire to “have the interpersonal skills to collaborate, work in teams, and cope with conflict.”⁵⁷

The ABA’s 1992 “MacCrate Report” also found that “cooperation among co-workers” was an essential element of efficient law office management.⁵⁸ The MacCrate Report concluded that “effective collaboration with others” was a critical skill, “regardless of whether a lawyer is a solo practitioner, a partner or associate in a firm, or a lawyer in public service practice.”⁵⁹

Such a conclusion is hardly surprising since “the practice of law is collaborative.”⁶⁰ Most lawyers do not simply create a final work product on their own.⁶¹ In fact, “[l]awyers spend much of their time work-

the world through the eyes of others, and developing relationships within the legal profession. *Id.* at 630. Other elements of lawyer effectiveness are: analysis and reasoning, creativity/innovation, problem solving, practical judgment, researching the law, fact finding, questioning and interviewing, influencing and advocating, writing, strategic planning, and providing advice and counsel, “evaluation, development, and mentoring,” passion and engagement, diligence, integrity/honesty, stress management, community involvement and service, and self-development. *Id.*

57. Charity Scott, *Collaborating with the Real World: Opportunities for Developing Skills and Values in Law Teaching*, 9 *IND. HEALTH L. REV.* 409, 418–19 (2012). A 1984 study of lawyers working at the Federal Trade Commission found “working with others” to be one of eleven indicia of lawyering effectiveness. Leatta M. Hough, *Development and Evaluation of the “Accomplishment Record” Method of Selecting and Promoting Professionals*, 69 *J. APPLIED PSYCHOL.* 135 (1984); see also LEONARD L. BAIRD ET AL., *DEFINING COMPETENCE IN LEGAL PRACTICE: THE EVALUATION OF LAWYERS IN LARGE FIRMS AND ORGANIZATIONS* 35–36 (1979) (reporting that the most commonly rated characteristic “considered important in the evaluation of lawyers” is the “ability to work well with clients and sponsoring groups”); Neil J. Dilloff, *The Changing Cultures and Economics of Large Law Firm Practice and Their Impact on Legal Education*, 70 *MD. L. REV.* 341, 358 (2011) (“Learning how to deal with individuals and how to play law firm politics—as crass as this may sound—are essential to climbing the career ladder.”); Sophie M. Sparrow, *Can They Work Well on a Team? Assessing Students’ Collaborative Skills*, 38 *WM. MITCHELL L. REV.* 1162, 1162 (2012) (“Working with others is an important legal skill.”).
58. SECTION OF LEGAL EDUC. & ADMISSIONS TO THE BAR, AM. BAR ASS’N, *LEGAL EDUCATION AND PROFESSIONAL DEVELOPMENT—AN EDUCATIONAL CONTINUUM* 199 (1992) [hereinafter *MACCRATE REPORT*].
59. *Id.* at 202–03. Only 37% of all lawyers are sole practitioners; see *Lawyer Demographics*, AM. BAR ASS’N, http://www.americanbar.org/content/dam/aba/migrated/marketresearch/PublicDocuments/lawyer_demographics_2013.authcheckdam.pdf (last visited July 2, 2014), archived at <http://perma.unl.edu/WN8G-83B7>. Just under half of all attorneys in private practice are sole practitioners. *Id.*
60. Tracey E. George & Chris Guthrie, *Joining Forces: The Role of Collaboration in the Development of Legal Thought*, 52 *J. LEGAL EDUC.* 559, 560 (2002).
61. See Neil Dilloff, *Law School Training: Bridging the Gap Between Legal Education and the Practice of Law*, 24 *STAN. L. & POL’Y REV.* 425, 439 (2013) (“All lawyers need to be able to work effectively with others. Even a solo practitioner must deal

ing collaboratively with others in 'brainstorming, group decisionmaking, engaging in complex multitask projects, and editing and being edited.'"⁶² Lawyers regularly work closely with a wide range of other players in the legal system, and not merely other lawyers: "Lawyers collaborate with colleagues, clients, consultants, court personnel, and even with adversaries."⁶³

In the criminal justice world, as Professor Anthony C. Thompson wrote, it takes a community to prosecute.⁶⁴ Successful prosecution requires that the prosecutor coordinate, at minimum, with law enforcement officers and other investigators, expert and lay witnesses, as well as other lawyers on the prosecuting team.⁶⁵ Professor Thompson adds that the essence of "community prosecution" requires "collaboration with community members in a problem-solving team that reflects a wide basis of knowledge and a wide range of perspectives."⁶⁶

Karen Glickstein, a lawyer specializing in employment defense work stressed the importance of being part of numerous "teams."⁶⁷ She notes that not only does she collaborate with "the traditional attorneys, legal assistants, and staff," from her own law firm, she also works with both "a variety of in-house attorneys and of a 'team' of other defense lawyers who shared a common goal of making good law for the employment defense bar—even if we were competitors for clients or business on some occasions."⁶⁸

with co-counsel on occasion, opposing counsel, and court personnel. In large-scale litigation and transactional practices, larger groups of lawyers, legal assistants, and staff all must work together, sometimes in a stressful and rushed atmosphere, to achieve the client's objective.").

62. Zimmerman, *supra* note 50, at 960 n.8 (quoting Paul Brest, *The Responsibility of Law Schools: Educating Lawyers as Counselors and Problem Solvers*, 58 LAW & CONTEMP. PROBS. 5, 15 (1995)); see also Alan M. Lerner, *Law & Lawyering in the Work Place: Building Better Lawyers by Teaching Students to Exercise Critical Judgment as Creative Problem Solver*, 32 AKRON L. REV. 107, 132 (1999) ("[M]ost of the lawyer's day is spent in collaboration with others.").
63. Lerner, *supra* note 62, at 131–32 (footnote call number omitted); see also Sparrow, *supra* note 57, at 1163 ("[L]aw practice increasingly relies on collaboration among lawyers, legal staff, clients, and other individuals, so have legal employers raised the demand for effective collaborative skills among law students and recent graduates.").
64. Anthony C. Thompson, *It Takes a Community to Prosecute*, 77 NOTRE DAME L. REV. 321, 323 (2002).
65. *Id.* at 332–33.
66. *Id.* at 363.
67. Karen R. Glickstein, *Better Practice and More Fun*, DRI FOR DEF., July 2002, at 55.
68. *Id.* Glickstein adds:

The legal 'teams' we operate as part of are diverse: the trial team dedicated to win a particular battle for a client; the team of attorneys within our law firms charged with hiring attorneys, increasing profits, or developing new marketing plans; and the 'national' team of defense attorneys who are dedicated to ensuring that court decisions do not set precedents

The use of “teams” has become commonplace in business and has entered the lexicon of legal management as well.⁶⁹ Law, along with many other business fields, has begun to stress the value of “‘collaborative intelligence,’ or ‘CQ,’ that results from the cooperative work of innovative thinkers.”⁷⁰ While many in the legal profession have always worked in groups,⁷¹ there is an increasing emphasis on lawyers working effectively on “teams.”⁷²

This new interest in collaborative work is, in part, a response to the demands of clients. Simply put, “[c]lients want team players, not

in a particular area of the law that will hurt the interests of defense clients and that punitive damages awards are capped at a reasonable level.

Id.

69. See, e.g., Shawn W. Cutler & David A. Daigle, *Using Business Methods in the Law: The Value of Teamwork Among Lawyers*, 25 T. JEFFERSON L. REV. 195, 210–11 (2002) (“[T]he use of teams has gained widespread acceptance throughout much of corporate America.”); John J. Hurley, *In Search of the New Paradigm: Total Quality Management in the Law Firm—A Case Study*, 43 EMORY L.J. 521 (1994) (describing benefits to law firm after nine months of “total quality management.”); see also Theresa M. Neff, *What Successful Companies Know That Law Firms Need to Know: The Importance of Employee Motivation and Job Satisfaction to Increased Productivity and Stronger Client Relationships*, 17 J.L. & HEALTH 385, 401 (2002) (reporting that businesses have found that teamwork improves work performance and employee loyalty: “Studies have shown that the psychological oneness with an organization induces individuals to adopt the organization’s perspectives, achieve the organization’s goals and work for its interest. Ultimately, an individual will experience the organization’s goals and interests as their own.”).
70. Rachel S. Tennis & Alexander Baier Schwab, *Business Model Innovation and Antitrust Law*, 29 YALE J. ON REG. 307, 337–38 (2012). The concept of “collaborative intelligence,” or “CQ,” was popularized by Stephen Joyce, who defines collaborative intelligence as “the capacity to harness the intelligence in networks of relationships.” STEPHEN JAMES JOYCE, *TEACHING AN ANTHILL TO FETCH: DEVELOPING COLLABORATIVE INTELLIGENCE @ WORK* 1 (2011).
71. See Mary Twitchell, *The Ethical Dilemmas of Lawyers on Teams*, 72 MINN. L. REV. 697, 698 (1988) (“[L]awyer teams—associated trial counsel, partnerships, corporate legal teams, legal service groups—have always been with us.”).
72. See, e.g., Catherine Gage O’Grady, *Preparing Students for the Profession: Clinical Education, Collaborative Pedagogy, and the Realities of Practice for the New Lawyer*, 4 CLINICAL L. REV. 485, 494 (1998) (“Increasingly, lawyers are working together in collaborative work teams.”); Twitchell, *supra* note 71, at 107 (“[T]ask sharing among lawyers is not only increasingly common but increasingly important”); Heidi Gardner, *Rewarding partnerships*, FT.COM (Oct. 4, 2013, 12:04 AM), <http://www.ft.com/intl/cms/s/0/c3c80938-298d-11e3-9bc6-00144feab7de.html#axzz35rbSNkhQ>, archived at <http://perma.unl.edu/27VM-2WPS> (“Many law firm leaders believe that collaboration is essential for generating sophisticated solutions to the increasingly complex issues that clients bring.”). As lawyer-psychologist Dr. Larry Richard wrote, “In today’s hyper-competitive and increasingly complex climate, successful law firms are placing more emphasis on lawyers working together in teams.” Dr. Larry Richard, *The Psychologically Savvy Leader*, WHAT MAKES LAWYERS TICK BLOG (November 14, 2013), <http://www.lawyerbrainblog.com>, archived at <http://perma.unl.edu/3C7M-P92X>.

prima donnas.”⁷³ It is in the interests of both lawyers and their clients to produce work products in the most cost-efficient manner and collaborative work has proven to be an economic necessity.⁷⁴

The increase in lawyer teamwork also reflects, in part, the capability for greater collaboration that has been created by new technologies.⁷⁵ Modern communications technology permits, for example, the creation of “virtual law firms,” which are law firms consisting of “a conglomeration of lawyers that use technology to collaborate online while working remotely and reducing costs.”⁷⁶

Another driving force encouraging greater lawyer collaboration is the changing nature of the legal work being done. Due to increased globalization and business consolidation, legal work has become “increasingly complex, multi-disciplinary and international.”⁷⁷

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73. Charles A. Maddock, *Works Well With Others: Building the Collaborative Law Firm*, LEGAL MGMT. 3 (Aug. 2003), http://www.altmanweil.com/dir_docs/resource/3d26c619-27c0-42e2-9b91-fe6c128b5d28_document.pdf (last visited June 26, 2014), archived at <http://perma.unl.edu/3NX5-PEWJ> (monthly e-newsletter from Altman Weil Direct); see Neil Hamilton and Verna Monson, *Teamwork Skills Are Critical for Effective Lawyering*, MINN. LAW., April 16, 2012, at 22 (“[C]lients evaluating lawyers . . . consider teamwork skills important for effective lawyering.”); see also Heidi Gardner and Annelena Lobb, *Collaborating for Growth: Duane Morris in a Turbulent Legal Sector*, HARV. BUS. SCH. CASE 414-022, 2013, at 2 (“Collaborative work . . . deepened long-term relationships with clients.”).
74. “Effective teamwork is critical to law firms. Increasingly, clients expect firms to work effectively across departments, offices, and even jurisdictions.” Julia Hayhoe & Larry Richard, *The Secret Lives of Teams*, AM. LAW., July 2006, at 59; see also Cutler & Daigle, *supra* note 69, at 217–18 (“[L]awyers who work together in teams are able to outperform what could be achieved by individual effort alone.”).
75. See, e.g., Sheila Blackford, *Can We Collaborate?: What Today’s Collaboration Tools Can Do for You and Your Clients*, 71 OR. ST. B. BULL. 34, 34 (2010) (“Technology has brought improvements to how lawyers can more effectively and easily collaborate with web-based tools such as blogs and wikis 24 hours a day, seven days a week. Lawyers can harness the synergistic power of collaboration for better client service and greater professional development as we learn the most from each other.”); Anna P. Hemingway, *Accomplishing Your Scholarly Agenda While Maximizing Students’ Learning (a.k.a., How to Teach Legal Methods and Have Time to Write Too)*, 50 DUQ. L. REV. 545, 558 (2012) (“[P]ractitioners use today’s enhanced document-sharing technology to produce court documents, and they also work together to prepare and present their cases in court.” (footnote omitted)).
76. Jon M. Garon, *Legal Education in Disruption: The Headwinds and Tailwinds of Technology*, 45 CONN. L. REV. 1165, 1181 (2013) (quoting STEPHANIE L. KIMBRO, VIRTUAL LAW PRACTICE: HOW TO DELIVER LEGAL SERVICES ONLINE 7 (2010)).
77. H. K. Gardner & P. Andrews, *Professional Development at DLA Piper—Building the Strength of Global Legal Talent*, HARV. BUS. SCH. CASE 413-001, 2012, at 2; see also Linda Morton et al., *Teaching Interdisciplinary Collaboration: Theory, Practice, and Assessment*, 13 QUINNIPIAC HEALTH L.J. 175, 175 (2010) (“[W]ith increased globalization and the call for complex problem solving, lawyers have recognized the need to work more collaboratively with other professions.”).

Ironically, as the work has become more multifaceted, lawyers and law firms have become more specialized, increasingly focusing on narrow legal areas.⁷⁸ Clients do not expect a particular lawyer, therefore, to have the skills necessary to solve their most complex problems, but they do “expect lawyers to know how to work with people who together have the knowledge and skills required to assist a client in this way.”⁷⁹

Accordingly, one study concluded that “most legal work in 2013—at least the high-value work that attorneys and law firms coveted—required multiple attorneys to work together. Collaboration was, in fact, extremely valuable to firms: it allowed them to take on increasingly sophisticated client work, which in turn let them charge higher prices.”⁸⁰

Increased globalization also has led to American lawyers working more with lawyers in other countries: “Counsel must frequently collaborate across geographic and cultural boundaries with far-off partners to ensure that work is aligned with the client’s global strategy and accounts for country-specific issues.”⁸¹ In addition, law firms have begun to “outsource” some legal work to less expensive foreign lawyers.⁸² This so-called “legal process outsourcing” requires “good communications skills, along with the ability to motivate workers from different organizations, negotiate and administer service contracts, assemble effective teams, and plan for and respond to contingencies.”⁸³ In other words, American lawyers need to learn how to collaborate with their international colleagues, just as they must learn to collaborate here at home.⁸⁴

Unfortunately, “[d]espite demand in law firms for first-year associates who can work collaboratively, law schools continue to graduate students who are unfamiliar and uncomfortable with the concept of

78. See, e.g., Michael Ariens, *Know the Law: A History of Legal Specialization*, 45 S.C. L. REV. 1003, 1057 (1994) (“[T]he specialist replaced the independent country lawyer.”).

79. Weinstein, *supra* note 37, at 320.

80. Gardner & Andrews, *supra* note 77, at 2.

81. Gardner & Lobb, *supra* note 73.

82. Cassandra Burke Robertson, *A Collaborative Model of Offshore Legal Outsourcing*, 43 ARIZ. ST. L.J. 125, 131 (2011).

83. Milton C. Regan, Jr. & Palmer T. Heenan, *Supply Chains and Porous Boundaries: The Disaggregation of Legal Services*, 78 FORDHAM L. REV. 2137, 2189 (2010).

84. See Robertson, *supra* note 82, at 179 (“Parties seeking a successful offshoring practice should instead adopt a collaborative model that builds relationships with both onshore and offshore legal service providers, working cooperatively with the provider best able to complete the projects, maintaining reciprocal communication, managing cultural differences, and acknowledging each participant’s contribution to the whole.”).

working in teams.”⁸⁵ Apart from clinical courses and some legal writing classes, “law school courses offer essentially no opportunity for collaborative problem solving.”⁸⁶ While other professional schools, such as medical schools and business schools stress the need for students to work collaboratively, in general, law schools have sent the opposite message: “I am in this alone.”⁸⁷ Indeed, “collaborative learning is routinely discouraged in law school.”⁸⁸

Thus, not only does the law school culture fail to educate law students in the ways of working on a team, “much of legal training, with its emphasis on individual work and achievement, is an impediment to developing effective team players.”⁸⁹ One result of this emphasis on solitary work is that “law students do not graduate with effective emotional intelligence skills—in particular, they have not learned to work well with others.”⁹⁰

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85. Janet Weinstein et al., *Teaching Teamwork to Law Students*, 63 J. LEGAL EDUC. 36, 36 (2013); see Fines, *supra* note 38, at 905 (“Despite the importance of team work in most professional settings, law schools rarely provide learning experiences fostering cooperative work.”); see also Susan Bryant, *Collaboration in Law Practice: A Satisfying and Productive Process For a Diverse Profession*, 17 VT. L. REV. 459, 464 (1993) (“Professional education, in the main, does not prepare students to practice in these bureaucratized and hierarchically organized law firms or in situations that involve other kinds of joint work.”).
86. Lerner, *supra* note 62, at 132; see also Fines, *supra* note 38, at 905–06 (“Opportunities for students to work on teams are rare outside the context of clinical or skills settings.”).
87. Vernellia R. Randall, *supra* note 16, at 217; see Sturm & Guinier, *supra* note 37, at 533 (“It is interesting that both focus on group learning and preparing students to work collaboratively, assuming those are vital skills to the respective professions, while law schools make no such assumption.”).
88. Hemingway, *supra* note 75, at 557; see also EILEEN SCALLEN, SOPHIE SPARROW, AND CLIFF ZIMMERMAN, *WORKING TOGETHER IN LAW: TEAMWORK AND SMALL GROUP SKILLS FOR LEGAL PROFESSIONALS* at x (2014) (“The vast majority of law schools . . . do not emphasize small group communication skills.”); Nancy Levit & Douglas O. Linder, *Happy Law Students, Happy Lawyers*, 58 SYRACUSE L. REV. 351, 364 (2008) (“[T]he actual implementation of collaborative learning projects in law schools has been limited thus far.”).
89. Weinstein et al., *supra* note 85, at 41; see also Susan Daicoff, *Lawyer, Know Thyself: A Review of Empirical Research on Attorney Attributes Bearing on Professionalism*, 46 AM. U. L. REV. 1337, 1381 (1997) (“[B]ecause legal education does not assist or encourage students to acquire interpersonal skills and often concentrates exclusively on the development of analytic skills, students may ignore the social and emotional consequences of decision-making.”); Zimmerman, *supra* note 50, at 965 (stating that collaborative learning is “inherently at odds with the development and structure of traditional legal education”).
90. Sparrow, *supra* note 57, at 1162; see, e.g., Gerald F. Hess, *Heads and Hearts: The Teaching and Learning Environment in Law School*, 52 J. LEGAL EDUC. 75, 82 (2002) (reporting the statement of a law student: “The whole atmosphere of law school is so competitive and so uncooperative and really a win-lose situation in addressing problems.”); Brigette LuAnn Willauer, Comment, *The Law School Honor Code and Collaborative Learning: Can They Coexist?*, 73 UMKC L. REV.

Much of the blame for individualistic law school culture rests on law faculty.⁹¹ The reason why so many members of legal academe have created and continue to support this culture will be explored in the next section.

B. The Solitary Legal Scholar

The legal academy's emphasis on individual work products can be traced, to a substantial extent, to the values shared and disseminated by law professors.⁹² For most, though certainly not all, law professors, both teaching and scholarship are seen as solitary activities.⁹³ Professor Melissa Marlow describes law professors' general "disinclination to work cooperatively as teachers."⁹⁴ She adds that law professors usually prefer "operating as independent contractors in teaching [to] working cooperatively with colleagues in the teaching mission."⁹⁵

This sort of "pedagogical solitude" affects what law faculty value and how they teach.⁹⁶ One significant way "in which legal academia has distinguished itself from many academic disciplines is in its reluctance to embrace collaboration in the production of knowledge."⁹⁷ Despite some notable exceptions, "collaboration has *not* played a very

513, 514 (2004) ("For the most part, law students experience the intense and challenging academic endeavor of law schools as isolated zombies.").

91. See Marlow, *supra* note 6, at 248 (stating that the culture of law schools is "heavily influenced" by the practices and attitudes of law faculty); Meadow, *supra* note 42, at 7 ("The values that we attend to in the classroom are apt to be individualism and autonomy . . .").
92. See, e.g., Sturm & Guinier, *supra* note 37, at 520 (stating that law school culture is, "preserved by the detachment of faculty from students' professional self-definition and reinforced by the primary way students learn—in class through questioning by professors in the presence of peers, when students perceive they have either won or lost the interaction."); see also Mary A. Lynch, *An Evaluation of Ten Concerns About Using Outcomes in Legal Education*, 38 WM. MITCHELL L. REV. 976, 994 (2012) ("Incorporating assessment of student learning outcomes into law school culture will take more work, time, thinking, and energy on the part of faculty.").
93. "For law professors, especially casebook professors, so much work is accomplished solitarily, that it is easy to forget that the practice of law involves working closely with other people." Hemingway, *supra* note 75, at 558.
94. Marlow, *supra* note 6, at 247; see also Philip C. Kissam, *The Decline of Law School Professionalism*, 134 U. PA. L. REV. 251, 266–67 (1986) ("Perhaps law faculties have never talked very much among themselves, or done much scholarship to talk about. Nonetheless, the lack of meaningful professional and intellectual exchange among members of many law faculties is striking—especially in contrast to the professional conversations in large law firms, where both economic incentives and the necessary numbers of specialists support such conversation.").
95. *Id.* at 248–49.
96. PAT HUTCHINGS, MAKING TEACHING COMMUNITY PROPERTY: A MENU FOR PEER COLLABORATION AND PEER REVIEW 7 (1996).
97. Paul Edelman & Tracey George, *Six Degrees of Cass Sunstein: Collaboration Networks in Legal Scholarship*, 11 GREEN BAG 19, 36 (2007).

significant role in the development of legal thought.”⁹⁸ Law review articles, which are usually the single most important determinant as to whether a law professor obtains tenure, are generally written by single authors.⁹⁹

The extent of solo authorship of law review articles has only recently become the focus of empirical research. There have been a few small studies that have concluded that there is “a relatively low rate of collaboration in law.”¹⁰⁰ A 2002 study of eleven law reviews found that throughout the period of 1970–1999, “collaborative articles consistently accounted for less than 20 percent of the total articles published.”¹⁰¹ A more recent study, this one focusing on what its authors termed “the ‘top fifteen’ law reviews,” found that the rate of coauthorship of major articles in those journals increased from 15% in 2000 to 23% in 2010.¹⁰² This study also looked at two journals specializing in law and economics, the *Journal of Legal Studies* and the *Journal of Law, Economics and Organization*, and found a much higher rate of coauthorship of major articles, 49.6%, for the period between 1989 and 2010.¹⁰³

In order to explore the extent to which coauthorship is, or is not, part of the culture of the legal academy, it is necessary to examine the full landscape of the law school universe. Previous studies of law review collaboration have been limited to a relatively small number of so-called “elite” journals.¹⁰⁴ One problem with limiting a study to so-

98. George & Guthrie, *supra* note 60, at 560. The notable exceptions listed by George and Guthrie include the following: HENRY M. HART JR. & ALBERT M. SACKS, *THE LEGAL PROCESS: BASIC PROBLEMS IN THE MAKING AND APPLICATION OF LAW* (10th ed. 1958); WILLIAM M. LANDES & RICHARD A. POSNER, *THE ECONOMIC STRUCTURE OF TORT LAW* (1987); Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089 (1972); Daniel A. Farber & Suzanna Sherry, *Telling Stories Out of School: An Essay on Legal Narratives*, 45 STAN. L. REV. 807 (1993); Robert H. Mnookin & Lewis Kornhauser, *Bargaining in the Shadow of the Law: The Case of Divorce*, 88 YALE L.J. 950 (1979); and Samuel D. Warren & Louis D. Brandeis, *The Right to Privacy*, 4 HARV. L. REV. 193 (1890).

99. Bernard J. Hibbitts, *Last Writes? Reassessing the Law Review in the Age of Cyberspace*, 71 N.Y.U. L. REV. 615, 640 (1996) (“[L]aw schools increasingly required that members of their faculties produce a substantial quantity of respectable written work—generally, two or three law review articles to obtain tenure, and several more to obtain promotion.”). Law professors do, however, coauthor “more practically oriented works, like treatises, casebooks, student study aids, and amicus briefs.” George & Guthrie, *supra* note 60, at 559.

100. Edelman & George, *supra* note 97, at 34.

101. George & Guthrie, *supra* note 60, at 563.

102. Tom Ginsburg & Thomas J. Miles, *Empiricism and the Rising Incidence of Coauthorship in Law*, 2011 U. ILL. L. REV. 1785, 1787, 1802 (2011).

103. *Id.* at 1818.

104. One major study was limited to articles published, “in the top fifteen law reviews during 2000–2010.” *Id.* at 1797. Their choice of “top” law reviews” which they conceded was “arbitrary,” consisted of Harvard Law Review, Yale Law Journal,

called “elite” journals is that their articles do not represent a true cross-section of the legal academic community.¹⁰⁵ As one recent study concluded: “It became clear beyond cavil that these journals publish virtually no authors who do not teach at top 25 schools.”¹⁰⁶

To conduct my study, I decided to include the top 50 law reviews as calculated by the Washington and Lee law library rankings.¹⁰⁷ In this

Stanford Law Review, University of Chicago Law Review, Columbia Law Review, New York University Law Review, Michigan Law Review, University of Pennsylvania Law Review, Virginia Law Review, Cornell Law Review, California Law Review, Duke Law Journal, Northwestern University Law Review, Texas Law Review, and Georgetown Law Journal. *Id.* at 1825. An earlier study, George & Guthrie, *supra* note 60, at 561–62, 582 n.13, looked at “five elite law journals—Chicago, Columbia, Harvard, Stanford, and Yale” along with journals from six other school, and “randomly selected two law schools from each of the three lower tiers [of U.S. News rankings].”

105. See, e.g., Jordan H. Leibman & James P. White, *How the Student-Edited Law Journals Make Their Publication Decisions*, 39 J. LEGAL EDUC. 387, 396 n.39 (1989) (“The editors at high-impact journals conceded that the authors’ credentials played a significant role in article selection—works by such authors were, at the least, ‘fast tracked.’”); Jason P. Nance & Dylan J. Steinberg, *The Law Review Selection Process: Results from a National Study*, 71 ALB. L. REV. 565, 571 (2008) (“Articles Editors use an author’s credentials as a proxy for the quality of her scholarship.”); Richard A. Wise et al., *Do Law Reviews Need Reform? A Survey of Law Professors, Student Editors, Attorneys, and Judges*, 59 LOY. L. REV. 1, 9 (2013) (saying that law review editors “frequently rely on an author’s reputation and law school affiliation when choosing articles because they cannot assess an article’s quality”).
106. Minna J. Kotkin, *Of Authorship and Audacity: An Empirical Study of Gender Disparity and Privilege in the “Top Ten” Law Reviews*, 31 WOMEN’S RTS. L. REP. 385, 389 (2010). Prof. Kotkin actually had fifteen reviews on her “top ten” list: Yale Law Journal, Harvard Law Review, Stanford Law Review, Columbia Law Review, New York University Law Review, California Law Review, University of Chicago Law Review, University of Pennsylvania Law Review, Northwestern University Law Review, Michigan Law Review, Virginia Law Review, Cornell Law Review, Texas Law Review, Georgetown Law Journal and UCLA Law Review. She constructed her list by considering the rankings of U.S. News and Washington and Lee law review rankings, as well as some lists constructed by Prof. Brian Leiter. *Id.* at 393; see Brian Leiter, *Ranking of Top 40 Law Schools by Student (Numerical) Quality 2008*, LEITER RANKINGS (Apr. 6, 2008), http://www.leiterrankings.com/students/2008student_quality.shtml (last visited Oct. 8, 2014), archived at <http://perma.unl.edu/TK7R-8KNY>; Brian Leiter, *Top 35 Law Faculties Based on Scholarly Impact 2007*, LEITER RANKINGS (Sept. 1, 2007), http://www.leiterrankings.com/faculty/2007faculty_impact.shtml, archived at <http://perma.unl.edu/9GUW-G2VA>.
107. There were actually 51 law reviews in the top 50, since there was a tie for 50 between the Alabama Law Review and the DePaul Law Review. See *infra* app. A. I chose the Washington and Lee list because it has been, since 2004, “perhaps the most notable reference in this area, [and because it] has published rankings of law journals of both law reviews and specialized and peer-review law journals.” Albert H. Yoon, *Editorial Bias in Legal Academia*, 5 J. OF LEGAL ANALYSIS 309, 314 (2013). Nonetheless, like the other rating systems in legal academe, its claim to enumerate the “top” or “best” or “most important”—essentially to attempt to

way, I would be able to capture articles written by faculty from almost every accredited law school.¹⁰⁸

I limited my article count to “major articles,” with at least one law professor listed among the authors. For this study, I defined a “major article” as one of at least 10,000 words to ensure that only significant scholarship was included.¹⁰⁹ To see if there had been changes over time, I examined three time periods, 1988–1992, 1998–2002, and 2008–2012.

In addition, because of the growth of specialized journals, I studied the top 20 “specialized” journals for the period 2008–2012 as well.¹¹⁰ I divided those specialized journals into two groups: “law and economics” and “non-law and economics,” in recognition of the fact that the style of law and economics articles lend themselves more to coauthorship than most areas of other legal scholarship.¹¹¹

In all, I considered 8,124 major law articles: 1,762 from the top general law reviews from 1988–1992, 2,478 from the top general law reviews from 1998–2002, 3,143 from the top general law reviews from 2008–2012, 143 from the top four law and economics journals,¹¹² and 598 from specialized non-law and economics journals.

calculate the incalculable—is ultimately incoherent and would be laughable if so many in the profession did not take rating systems seriously.

108. By expanding my study to 50 law reviews, I was able to capture faculty authors from most, if not all, law schools that are ABA-accredited and members of the Association of American Law Schools. *See generally* Lucinda Harrison-Cox, Raquel M. Ortiz & Michael J. Yelnosky, *Faculty Scholarship Study*, ROGER WILLIAMS UNIV. SCH. OF LAW (March 19, 2013), <http://law.rwu.edu/faculty/faculty-productivity-study>, archived at <http://perma.unl.edu/J5EP-VPU4> (showing how often professors at the law schools with U.S. News rankings higher than 50 publish in the “general law reviews published by the 54 schools receiving the highest peer assessment scores in the 2008 U.S. NEWS RANKINGS . . . and an additional 13 journals that appeared in the top 50 of the Washington & Lee Law Journal Combined Rankings in June 2007”).
109. Law review articles shorter than 10,000 words are often called “essays.” *See, e.g.*, Nance & Steinberg, *supra* note 105, at 621 n.23 (quoting University of Pennsylvania Law Review guidelines: “We encourage the submission of essays (manuscripts of approximately 10,000 words).”). Other studies have used a different definition of “major article.” *See e.g.* Ginsburg & Miles, *supra* note 102, at 1800 (stating that their definition of “[m]ajor articles’ excludes student notes and comments, book reviews, tributes and memorials, and symposium articles”). Another study was limited to “regular articles,” which was meant to exclude, “symposia, speeches, comments, essays, notes, [and] book reviews.” George & Guthrie, *supra* note 60, at 582 n.10. My numerical definition has the advantage of excluding all short pieces, so that minor pieces are excluded.
110. *See infra* app. B.
111. This is likely due to the fact that, on average, scholarship in law and economics is far more technical and empirical than that in other legal disciplines. *See, e.g.*, Ginsburg & Miles, *supra* note 102, at 1816–17.
112. In addition to the JOURNAL OF EMPIRICAL LEGAL STUDIES and THE JOURNAL OF LEGAL STUDIES, which were in the Washington & Lee “Top 20 Specialized,” I also examined two other leading journals focusing on law and economics, the AMERI-

Table I: General Interest 1988–1992

YEAR	Single	Multiple	All
1988	285	29	314
1989	329	31	360
1990	307	35	342
1991	327	41	368
1992	338	40	378
Totals	1,586	176	1,762
	90%	10%	

Table II: General Interest 1998–2002

YEAR	Single	Multiple	All
1998	448	41	489
1999	458	50	508
2000	478	49	527
2001	403	60	463
2002	426	65	491
Totals	2,213	265	2,478
	89.3%	10.7%	

As Tables I and II show, coauthored articles were relatively rare in general interest law reviews for both the periods 1988–1992 and 1998–2002. Barely one-tenth of the major articles, 10% for the earlier time period, 10.7% for the later, had more than one author. Interestingly, there was virtually no change in the decade separating the two time periods.

Table III: General Interest 2008–2012

YEAR	Single	Multiple	All
2008	511	113	624
2009	512	125	637
2010	511	114	625
2011	523	120	643
2012	490	124	614
Totals	2,547	596	3,143
	81%	19.0%	

Table III reveals that for the most recent five-year period there has been a sizable increase in the percentage of coauthored major law re-

view articles in general law reviews. For the period 2008–2012, the percentage of major law review articles with more than one author almost doubled, to about 19.0%. While this is still less than the percentage for mathematics articles, it represents what could be the beginning of a significant change in legal academic culture.

Table IV: Specialized Non-Law and Economics 2008–2012

YEAR	Single	Multiple	All
2008	96	33	129
2009	101	18	119
2010	86	29	115
2011	96	24	120
2012	102	13	115
Totals	481	117	598
	80.4%	19.6%	

Table IV shows that the percentage of coauthored major law review articles in specialized non-law and economics journals is almost identical to that of general law reviews. For these specialized journals, 19.6% of the major articles have more than one author, a percentage virtually the same as the 19.0% for general-interest law reviews.

Table V: Law and Economics 2008–2012

YEAR	Single	Multiple	All
2008	9	7	16
2009	18	14	32
2010	21	9	30
2011	23	15	38
2012	21	6	27
Totals	92	51	143
	64.3%	35.7%	

Table V shows a dramatically higher rate of coauthorship for major articles in law and economics journals. More than one-third of their major articles, 35.7%, have more than one author.¹¹³

The data shows that, with one notable exception, the rate of collaboration in legal scholarship lags significantly behind the rate for mathematical research. While more than half of all mathematical pa-

113. The reason this number is different from that obtained by Ginsburg and Miles is that I looked at four law and economic journals while they looked at two; plus I used a slightly different definition of “major articles.”

pers are cowritten, more than 80% of legal scholarship (excepting law and economics scholarship) is the work of a single author. Even for law and economics scholarship, the ratio of coauthored work, slightly more than one-third, still falls significantly below the ratio for mathematicians.

This is not to say, of course, that there is no collaboration in legal academe. Some professors have one person with whom they coauthor frequently.¹¹⁴ Others may have many different coauthors over the course of their careers; a 2007 study revealed that Harvard law professor Cass Sunstein had published with fifty-eight different coauthors, while Yale law professor Ian Ayers had collaborated with forty-four different people.¹¹⁵ Nonetheless, the law school culture, unlike the mathematical culture, does not emphasize or reward academic collaboration.

C. Collaboration in Other Academic Fields

The divide between collaboration rates in legal scholarship as opposed to mathematical research can also be seen when reviewing collaboration rates in other fields. Some, such as science and economics, have high rates of collaboration, while in other fields, such as history or literature, almost all scholarship is done by a single author.

In much of the hard sciences, collaborative research is almost universal.¹¹⁶ One review of the prestigious journal *Science and Nature* found only six single-authored research articles out of the hundreds published in the first six months of 2009.¹¹⁷ Not only is the collaboration rate high, each author collaborates with many different fellow scientists. Those who conduct research about theoretical high-energy physics theory and computer science average four coauthors, astrophysicists average closer to eighteen coauthors, and scientists who engage in high-energy physics research average an eye-boggling 173 collaborators per author.¹¹⁸

114. According to a Lexis search conducted in 2014, William Landes and Richard Posner have cowritten at least ten articles in addition to their several books.

115. Edelman & George, *supra* note 97, at 29–30. Edelman and George anointed Cass Sunstein as the “legal Erdős,” the legal scholar who most functioned as “the central hub in the legal collaboration network.” *Id.*

116. *See, e.g.*, James W. Endersby, *Collaborative Research in the Social Sciences: Multiple Authorship and Publication Credit*, 77 Soc. Sci. Q. 375, 376 (1996) (“[C]ollaboration in the physical sciences is now the norm.”).

117. Rose McDermott & Peter K. Hatemi, *Emerging Models of Collaboration in Political Science: Changes, Benefits, and Challenges*, 43 PS: POL. SCI. & POL. 49 (2010); *see also* Johnnie Johnson Hafernik et al., *Collaborative Research: Why and How?*, EDUC. RESEARCHER, Dec. 1997, at 31 (stating that in the first six volumes of the journal SCIENCE in 1997, “97% of the articles were coauthored, 30% with six or more authors, one with 21 authors”).

118. Newman, *supra* note 15, at 404–09. Individual papers can also have many coauthors; one study found that the average science paper had about three authors.

Economics has seen a great increase in the number of coauthored articles. In 1965 less than 30% of the major articles published in the *American Economic Review* were coauthored; the number had risen to more than half by 1985.¹¹⁹ That trend has continued. A study of faculty at US colleges and universities that offer a PhD in Economics found that the proportion of collaborative economic papers has risen from 49% to 70% in the twenty-year period between 1985 and 2004.¹²⁰

Scholarship in the public administration field has shown a comparable rate of increase in coauthorship. In 1973, less than 40% of the articles were coauthored; as of 2007, 84% of public administration articles had more than one author.¹²¹

A similar, though less dramatic, increase in coauthorship can be seen in political science research.¹²² In the 1950s, fewer than 7% of political science papers were coauthored, but that percentage rose steadily.¹²³ In 2008, for example, more than half of the articles in *American Political Science Review* were coauthored.¹²⁴

Not all academic fields have seen an increase in coauthorship. Scholarship in the humanities, in particular, is dominated by single-author work.¹²⁵ For example, over 90% of published research by his-

Id. at 406. An article in *Science* about a four-million-year-old fossil, "had no fewer than 47 authors who worked together over the course of 15 years." McDermott & Hatemi, *supra* note 117, at 49.

119. Garey C. Durden & Timothy J. Perri, *Coauthorship and Publication Efficiency*, AM. ECON. J., Mar. 1995, at 69.
120. Cliff Nowell & Therese Grijalva, *Trends in Coauthorship in Economics Since 1985*, 43 APPLIED ECON. 4369, 4370 (2011).
121. Elizabeth Corley & Meghna Sabharwal, *Scholarly Collaboration and Productivity Patterns in Public Administration: Analysing Recent Trends*, 88 PUB. ADMIN. 627, 639 (2010). Corley and Sabharwal also found a significant increase in the number of coauthors for public administration scholarship, as 31% of all articles had three or more authors in 2007, up from 14% in 1973. *Id.*
122. See, e.g., McDermott & Hatemi, *supra* note 117, at 49 ("In increasing numbers, political scientists are engaging in collaborative research.").
123. Bonnie S. Fisher, Craig T. Cobane, Thomas M. Vander Ven & Francis T. Cullen, *How Many Authors Does It Take to Publish an Article? Trends and Patterns in Political Science*, 31 PS: POL. SCI. & POL. 847, 851 (1998). According to one study, "[c]ollaboration increased most significantly in the subfield of American politics, and least in political theory." McDermott & Hatemi, *supra* note 117, at 50.
124. McDermott & Hatemi, *supra* note 117, at 51. This is similar to the increase in coauthorship found in sociology research. From the 1950s through 1996, coauthored articles in sociology journals increased from 25.2% to 53.9%. Ender-sby, *supra* note 116.
125. See Ender-sby, *supra* note 116, at 380 ("Collaboration in the humanities is rare and may even be discouraged in the academy.").

torians has a single author.¹²⁶ Similarly, language scholars and literary scholars “usually write alone.”¹²⁷

D. Explaining Differing Rates of Collaboration

There is a wide range of factors that have led to various academic fields exhibiting different rates of collaboration. Most of the important scientific research now being done is of such a vast scope that it is inconceivable that one person would be capable of doing it alone: “Genetic research, a search for the cures for cancer and AIDS, and space exploration, for example, require a team approach, often two or more laboratory teams.”¹²⁸

In other fields, numerous studies have found that articles containing empirical research are more likely to be coauthored.¹²⁹ One study of law review articles by Professors Tom Ginsburg and Thomas J. Miles showed that articles containing empirical analysis were far more likely to be coauthored.¹³⁰ In fact, Ginsburg and Miles concluded that much, if not most, of the increase in coauthorship in law review articles was attributable to an increase in the number of law review articles relying on empirical research.¹³¹

A link between increased empirical research and increased coauthorship has been found in other fields as well. In economics, “[t]he combination of quantitative methods with other economic analyses is what appears to spur [] coauthorship.”¹³² Similarly, for political science research “empirical articles [are] more likely to be multiple au-

126. *Id.* A study of THE AMERICAN HISTORICAL REVIEW revealed that every single article published in 2007 had only one author. McDermott & Hatemi, *supra* note 117, at 50.

127. Endersby, *supra* note 116, at 376. The creative arts tend to be even more solitary. It has also been noted that the Nobel Prize for Literature has never been given for collaborative work. Hafernik et al., *supra* note 117, at 31.

128. Hafernik et al., *supra* note 117, at 31; *see also* Endersby, *supra* note 116, at 383–84 (“[T]he frequency of collaboration is probably linked to the type of research conducted . . .”); David N. Laband & Robert D. Tollison, *Intellectual Collaboration*, 108 J. POL. ECON., 632, 637–38 (2000) (“[S]cientific investigation in the natural sciences is capital-intensive relative to the social sciences. Certain equipment necessary for conducting scientific experiments in the natural sciences is so costly that relatively few laboratories have the requisite piece of equipment or material to be analyzed.”).

129. One study considered an article to be empirical, “if it presented a novel analysis of data.” *See* Ginsburg & Miles, *supra* note 102, at 1798.

130. *Id.* at 1809. Ginsburg and Miles found that for major law review articles, the likelihood of coauthorship was twenty-six percentage points higher if the article contained empirical analysis. *Id.*

131. *Id.* at 1825 (stating that the trend of increased interdisciplinary and empirical research “appears to have driven the trend toward more collaboration in law”).

132. Nowell & Grijalva, *supra* note 120, at 4374.

thored than theoretical articles.”¹³³ Perhaps relatedly, it appears that political science articles containing sophisticated statistical analysis are also far more likely to be coauthored.¹³⁴

Another force driving collaborative writing is the trend toward increased specialization that has occurred in many academic fields.¹³⁵ As the scope, as opposed to the depth, of one’s knowledge narrows, it often becomes necessary to find coauthors who have expertise in different, but relevant subfields: “The likelihood that a single person possesses all of the human capital necessary to produce a contribution falls and collaboration rises. In effect, collaboration represents a greater division of labor as the size of the scholarly ‘market’ grows.”¹³⁶

Law schools, in particular, are part of an “age of increasing specialization.”¹³⁷ The factors leading to an increase in “doctrinal specialization, of course, feed the tendencies of law professors to concentrate their scholarship in specialized fields.”¹³⁸ As in other fields, this specialization has contributed to the somewhat increased coauthorship of legal scholarship.

Just as a scholar in a narrow field needs coauthors if she hopes to competently discuss a topic outside her field, scholars must have coauthors when they attempt interdisciplinary work: “Increasing interdisciplinary work may require more complex forms of collaboration across fields as research projects become larger, more sophisticated,

133. Fisher et al., *supra* note 123, at 852. They found that 58.2% of empirical political science articles were coauthored, while only 22.7% of theoretical articles had more than one author. *Id.*

134. *See id.* (saying that 58.5% of the political science articles containing bivariate statistics had more than one author); *see also* Laband & Tollison, *supra* note 128, at 640 (“[A] paper with 20 equations or four tables is approximately 8 percent more likely to be coauthored than a paper with no equations or tables”); McDermott & Hatemi, *supra* note 117, at 50 (“[P]eople doing quantitative work are much more likely to collaborate than those involved in non-quantitative work”).

135. *See, e.g.*, Laband & Tollison, *supra* note 128, at 638 (“[S]pecialization and division of labor . . . has led to increased coauthorship.”).

136. Ginsburg & Miles, *supra* note 102, at 1786–87.

137. Robert C. Ellickson, *Federalism and Kelo: A Question for Richard Epstein*, 44 TULSA L. REV. 751, 751 (2009); *see also* Kissam, *supra* note 94, at 264 (“[T]he fact of significant law faculty specialization during the past few decades is well recognized.”). Of course, many other academic fields have seen an increase in specialization as well. *See, e.g.*, Durden & Peri, *supra* note 119, at 70 (describing how “the body of knowledge in economics and the degree of sub-specialization have increased”).

138. Philip C. Kissam, *Lurching Towards the Millennium: The Law School, the Research University, and the Professional Reforms of Legal Education*, 60 OHIO ST. L.J. 1965, 1980 (1999); *see also* Robert P. Schuwerk, *The Law Professor as Fiduciary: What Duties Do We Owe to Our Students*, 45 S. TEX. L. REV. 753, 758–59 (2004) (“We law professors know far more about the law than our students do and, by confining ourselves to relatively narrow areas of specialization, we can manage to keep it that way throughout their tenure at our institutions.”).

and more demanding in nature.”¹³⁹ One study attributed part of the increase in coauthorship of public administration scholarship to the increase in interdisciplinary work, saying that “collaboration is often not only desirable, but required, because a single scholar rarely has full command of the variety of disciplinary skills required to complete the project.”¹⁴⁰

There has also been a significant increase in interdisciplinary legal scholarship.¹⁴¹ According to Dean Erwin Chemerinsky, over the last several decades “[f]aculty scholarship has become far more interdisciplinary and more abstract, and interdisciplinary scholarship is more highly valued than traditional doctrinal scholarship, especially at elite institutions.”¹⁴² This rise in interdisciplinary legal scholarship has also contributed to the increase in coauthorship.

Technological changes are a final factor that has led to increased collaboration in most academic fields. In the 1990s, technological developments such as “direct dialing, the floppy disk, word processing packages, fax and e-mail” were credited with making collaboration much easier.¹⁴³ In more recent times, the Internet has radically altered the nature of coauthorship by reducing the time and effort in finding a collaborator as well as the collaboration itself.

The Internet allows “researchers greater ability to communicate and coordinate research efforts with individuals at other institutions.”¹⁴⁴ Studies show that the Internet and other advances in infor-

139. McDermott & Hatemi, *supra* note 117, at 51.

140. Corley & Sabharwal, *supra* note 121, at 627–28.

141. See, e.g., J.M. Balkin, *Interdisciplinarity As Colonization*, 53 WASH. & LEE L. REV. 949, 951 (1996) (stating that “interdisciplinary scholarship [has become] more and more the norm”); Stephen M. Feldman, *The Transformation of an Academic Discipline: Law Professors in the Past and Future (or Toy Story Too)*, 54 J. LEGAL EDUC. 471, 493 (2004) (“[L]aw professors are such prolific interdisciplinary scholars . . .”).

142. Erwin Chemerinsky, *Foreword: Why Write?*, 107 MICH. L. REV. 881, 885 (2009). Judge Posner has written that the growth in interdisciplinary scholarship, “began to take hold in the legal academy around 1970.” Richard A. Posner, *Legal Scholarship Today*, 115 HARV. L. REV. 1314, 1316 (2002).

143. John Hudson, *Trends in Multi-Authored Papers in Economics*, J. ECON. PERSP., Summer 1996, at 153, 156; see also Labland & Tollison, *supra* note 128, at 641, (“The closing decades of the twentieth century have been characterized by, among other things, dramatically falling costs of long-distance communications. Arguably, this has reduced the transactions costs of formal intellectual collaboration. Collaborating scientists can, in 1998, exchange ideas, data, empirical results, comments, and even manuscripts long-distance through FTP or e-mail at virtually no cost differential over such exchanges taking place face to face.”); Lucia Ann Silecchia, *Of Painters, Sculptors, Quill Pens, and Microchips: Teaching Legal Writers in the Electronic Age*, 75 NEB. L. REV. 802, 805 (1996) (“No longer do lawyers do most of their work ‘by hand.’ Instead, most legal writing is now done on word processors.”).

144. Daniel M. Butler, Richard J. Butler & Jesse T. Rich, *The Equalizing Effect of the Internet on Access to Research Expertise in Political Science and Economics*, 41

mation technology “diminish the importance of cooperation within physical boundaries and greatly facilitate collaboration from a distance.”¹⁴⁵

These technological changes have, of course, greatly impacted legal research: “The Internet reshapes the way lawyers conduct their legal research and access information, and has made information retrieval far faster and in many ways more efficient than ever before.”¹⁴⁶ The Internet has facilitated legal academic collaboration just as it has all other academic collaboration.

Yet all these factors fail to explain fully why different fields exhibit such different collaboration rates. None of these explain why there is so much more coauthored research in public administration than in law.¹⁴⁷ They also do not explain why law professors conducting empirical research in law and economics do not collaborate at the same rate as economics professors in their empirical research.¹⁴⁸ It appears that the culture of each academic field will greatly affect the extent to which each of these factors increases the amount of coauthorship in that field.¹⁴⁹ For legal academe, the culture of the solitary law professor has significantly impeded the advance of collaboration.

PS: POL. SCI. & POL. 579, 582 (2008). The Internet has “an equalizing effect on access to research expertise.” *Id.* at 583.

145. E. Han Kim, Adair Morse & Luigi Zingales, *Are Elite Universities Losing Their Competitive Edge?*, 93 J. FIN. ECON., 353, 379 (2009); see also Jonathon N. Cummings & Sara Kiesler, *Collaborative Research Across Disciplinary and Organizational Boundaries*, 35 SOC. STUD. SCI. 703 (2005) (“Today, dispersed collaborations are more feasible because communication technologies allow scientists to exchange news, data, reports, equipment, instruments, and other resources.”).
146. Michael L. Rustad & Diane D’Angelo, *The Path of Internet Law: An Annotated Guide to Legal Landmarks*, 10 DUKE L. & TECH. REV. 1, 12 (2011); see also Betsy Lenhart, *The Seventeenth Century Meets the Internet: Using a Historian’s Approach to Evaluating Documents as a Guide to Twenty-First Century Online Legal Research*, 9 LEGAL COMM. & RHETORIC: JALWD 21, 27 (2012) (noting that 84.8% of attorneys begin legal research with online sources); see generally Am. Ass’n of Law Libr., *The Internet as a Legal Research Tool*, PLL (2012), <http://www.aallnet.org/main-menu/Publications/products/Law-Librarians-Making-Information-Work/pll-guide-5.pdf>, archived at <http://perma.unl.edu/X47E-3UNU> (discussing the impact of the Internet on legal research).
147. See *supra* text accompanying note 121.
148. See *supra* text accompanying notes 129–31. Compare *supra* text accompanying note 113, with *supra* text accompanying note 120.
149. See Jeremy P. Birnholtz, *When Do Researchers Collaborate? Toward a Model of Collaboration Propensity*, 58 J. AM. SOC’Y INFO. SCI. & TECH. 2226 (2007) (“[T]he qualitative data do suggest that there are some subtle and complex social influences on collaboration.”); see also KARIN KNORR CETINA, *EPISTEMIC CULTURES: HOW THE SCIENCES MAKE KNOWLEDGE* 159–240 (1999) (describing the social differences that lead to differing views of collaboration between those researching high-energy physics and molecular biology).

IV. CREATING A LAW SCHOOL CULTURE OF COLLABORATION

A. Recognizing the Lost Benefits of Collaboration: Law Faculty

Perhaps the first step to altering the law school culture of individualism would be for law faculty to understand what they are missing. In addition to reducing the harm to our students, law faculty should recognize that were they to embrace the values of collaboration, they could benefit as much as their students. In other fields, the benefits of collaboration, including coauthorship, are well known. As sociologist Stanley Presser noted, "There are many reasons why the proverbial 'two heads are better than one' might apply to specific research."¹⁵⁰

One of the most obvious benefits of coauthorship is that "it allows for an efficient division of labor."¹⁵¹ Specifically, two authors with expertise in different areas can produce a work that involves both fields without either author having to learn the details of the other's area of expertise. Thus, "[t]he distinctive skills of a collaborator may permit an academic to produce work that he or she would not be able to produce individually."¹⁵² For a legal academic, this could mean either an interdisciplinary paper or a work cowritten with a colleague who is an expert in a different legal area.

A second benefit from collaboration is social and psychological. As mathematician Steven Krantz noted, "Working alone, it is easy to become discouraged and confused. Having a collaborator can give you strength, give you someone off of whom you can bounce your ideas, give you a regular re-centering of your course."¹⁵³ Instead of working in solitary isolation, it can be "a great help to have a sounding board, a reality check, a verifier that only another person can be."¹⁵⁴ Coauthors also can provide a needed incentive to keep research on track: "Knowing that others are involved and that there are regular meet-

150. Stanley Presser, *Collaboration and the Quality of Research*, 10 Soc. Stud. Sci. 95, 95 (1980).

151. Hudson, *supra* note 143, at 157.

152. Ginsburg & Miles, *supra* note 102, at 1789. This is sometimes referred to as "harnessing skill complementarities." Hudson, *supra* note 143, at 157; *see also* McDermott & Hatemi, *supra* note 117, at 51 ("Not only does collaborative work contribute to originality, but successful teamwork also enhances the development of long-term vision, skills, breadth, and depth among and between researchers of different expertise.").

153. KRANTZ, *supra* note 27, at 96; *see also* DONALD CAMPBELL PELZ & FRANK M. ANDREWS, *SCIENTISTS IN ORGANIZATIONS: PRODUCTIVE CLIMATES FOR RESEARCH AND DEVELOPMENT* 52 (1966) (saying that one way that collaborators "may help a person is in keeping him on his toes").

154. KRANTZ, *supra* note 27, at 95.

ings and deadlines scheduled (however flexible) intensifies motivation to get things done.”¹⁵⁵

The most important benefit from academic collaboration, though, might be that it “hold[s] the promise of producing better scholarship.”¹⁵⁶ As Alan Turing, the British mathematician and computer pioneer, noted: “[T]he isolated man does not develop any intellectual power. It is necessary for him to be immersed in an environment of other men [T]he search for new techniques must be regarded as carried out by the human community as a whole, rather than by individuals.”¹⁵⁷

When people work together, they may find that there is “a sort of synergy where multiple contributors develop ideas that none would have developed on his or her own.”¹⁵⁸ Mathematicians Jack Cohen and Ian Stewart reimagined the word “complicity” as a cross between “complexity” and “simplicity.”¹⁵⁹ In their view, “complicity” is the result of collaborative synergy: “When two points of view complement each other, they don’t just fit together like lock and key or strawberries and cream; they spawn completely new ideas.”¹⁶⁰

For a legal scholar to admit that his or her thought process could be improved by collaboration requires not just a change in culture, but also a healthy dose of personal humility—a trait not usually associated with law professors.¹⁶¹ Yet an awareness of one’s inherent limitations is an essential step for transcending them.¹⁶² As law professor

155. Hafernik et al., *supra* note 117, at 34.

156. George & Guthrie, *supra* note 60, at 579; *see also* McDermott & Hatemi, *supra* note 117, at 51 (“There is strong support for the notion that collaboration is critically important for creating better work products.”); Presser, *supra* note 150, at 97 (“Authors who work with others are more likely to write higher quality papers, regardless of discipline.”).

157. ALAN TURING, *INTELLIGENT MACHINERY* (1948), *reprinted in* THE ESSENTIAL TURING 395, 431 (B. Jack Copeland ed., 2004); *see also* Rebecca E. Burnett, Christiana I. White & Ann H. Duin, *Locating Collaboration: Reflections, Features, and Influences*, in FOUNDATIONS FOR TEACHING TECHNICAL COMMUNICATION: THEORY, PRACTICE, AND PROGRAM DESIGN 133, 152 (Katherine Staples ed. 1997) (“Substantive conflict during collaboration not only is normal, but also can be productive, in large part because it gives collaborators more time to generate and critically examine alternatives and to voice disagreements on their way to making a decision.”).

158. Hudson, *supra* note 143, at 157; *see also* George & Guthrie, *supra* note 60, at 582 (“[J]oint projects reflect the thinking of more than one person and ideally the synergy of complementary intellectual strengths.”).

159. IAN STEWART, *LETTERS TO A YOUNG MATHEMATICIAN* 192 (2007).

160. *Id.*

161. *See, e.g.*, Maureen E. Markey, *Ariadne’s Thread: Leading Students into and out of the Labyrinth of the Rule Against Perpetuities*, 54 CLEV. ST. L. REV. 337, 347 (2006) (“[L]aw professors are not generally known for their humility . . .”).

162. And, if not transcending our weakness, hiding them: “[If you coauthor,] you can play to each other’s strengths and mask weaknesses. (For example, a strong researcher might be paired effectively with a strong writer and great articles

William P. Quigley wrote, “[H]umility, as all continual learners are often reminded, is in fact part of the threshold of learning.”¹⁶³

There is also an important societal benefit that might accrue from increased collaboration: Those who are experienced researchers and writers can mentor those who are new to the field.¹⁶⁴ Similarly, those who are experienced with the writing process can choose their coauthors to ensure that more and different voices and opinions are heard in the community:

Collaborative projects draw in individuals who have previously not been involved and who might not have considered starting a research program. By broadening the circle of individuals doing research and writing, more perspectives and voices are heard. These individuals may also go on to contribute much collaboratively and individually to the profession through their research and writing.¹⁶⁵

It would be a vast overstatement, though, to imply that collaboration is not without its cost or is always beneficial. Coauthorship does not inevitably improve the product. Without careful editing, “a multi-authored paper may be somewhat more likely to end up as a patchwork of text lacking a direction or theme.”¹⁶⁶ Moreover, the need for authors to reach agreement may lead to a watered-down version of an otherwise bold thesis.¹⁶⁷ And there is the catalog of nasty results possible if one makes the wrong choice of coauthor:

emerge.)” Christian C. Day, *In Search of the Read Footnote: Techniques for Writing Legal Scholarship and Having It Published*, 6 J. LEGAL WRITING INST. 229, 246 (2000).

163. William P. Quigley, *Reflections from the Journals of Prosecution Clinic Students*, 74 MISS. L.J. 1147, 1158 (2005); see also William J. Stuntz, *Christian Legal Theory*, 116 HARV. L. REV. 1707, 1741 (2003) (reviewing CHRISTIAN PERSPECTIVES ON LEGAL THOUGHT (Michael W. McConnell, Robert F. Cochran & Angela C. Carmella eds., 2001)) (stating that law professors should have greater humility because, “we know less than we claim to know, and we are not as smart as we claim to be”).
164. Writing an article with a colleague who has been published can be a worthwhile experience for new legal scholars Most times, new scholars gain an appreciation of how much work it truly is to produce and publish an article. By going through the process, they gain an understanding of how much time is needed and what steps need to be completed to publish quality scholarship.
- Hemingway, *supra* note 75, at 602, 604; see also Corley & Sabharwal, *supra* note 121, at 630 (“Collaboration also brings experienced faculty and students together to work on creative projects and, thus, fosters mentorship.”); Endersby, *supra* note 116, at 377 (“[S]tudents and junior colleagues may learn more from active participation in research with skilled senior scholars. Conversely, scholars at later stages of their careers may benefit from new ideas and fresh approaches.”).
165. Hafernik et al., *supra* note 117, at 34.
166. Hudson, *supra* note 143, at 157.
167. See Lee Sigelman, *Are Two (or Three or Four . . . or Nine) Heads Better than One? Collaboration, Multidisciplinarity, and Publishability*, 42 PS: POL. SCI. & POL. 507, 507 (2009) (“[C]ollaboration involves compromise and may therefore reduce risk taking and innovation . . .”).

Friends' complaints about bad coauthors have ranged from missing deadlines, to faulty scholarship that lacked integrity, to manuscripts that were so sloppy they could not be salvaged. Colleagues have reported that some coauthors dumped poor drafts on them and that only Herculean efforts salvaged the work. One friend even reported that a coauthor "stole" the work and submitted the article as his work.¹⁶⁸

The take-home message is not, however, to never collaborate. The wiser message is: "Choose your coauthor with care."¹⁶⁹

B. Recognizing the Lost Benefits of Collaboration: Law Students

Obviously, teaching law students to collaborate would help them adjust more quickly to future legal employment in which collaboration is commonplace.¹⁷⁰ But there are a multitude of other benefits that would accrue to law students were their education to stress collaborative work. Numerous academic studies have revealed a wide number of advantages that students gain from learning to work in a group.¹⁷¹ Professors Elizabeth Inglehart, Kathleen Narko, and Clifford Zimmerman catalogued some of these benefits into three categories: substantive, advancing the understanding of the subject matter; cognitive, advancing general reasoning skills and judgment; and emotional or psychological benefits, those that enhance mental or emotional well-being.¹⁷²

Cognitive

Students learn how others write and learn

Students learn how others reason

Students hear different opinions

Substantive

Results in a higher level of individual achievement

Results in greater analytical ability (higher level of thinking)

Increases reflective thinking

168. Day, *supra* note 162, at 254 n.52; see also Endersby, *supra* note 116, at 377 ("Differences of technique, interpretation, and personality may make a collaborative enterprise difficult to lead to completion.").

169. Day, *supra* note 162, at 254 n.52.

170. See *supra* text accompanying notes 54–88; see also Willauer, *supra* note 90, at 517 ("Theoretically, if the practice of law is cooperative, then the law school environment should foster cooperation.").

171. See, e.g., Bryant, *supra* note 6, at 472 ("Studies of work outside the legal profession have suggested that collaboration can result in enhanced productivity, creativity, accuracy, and problem solving."); Elizabeth L. Inglehart, Kathleen Dillon Narko & Clifford S. Zimmerman, *From Cooperative Learning to Collaborative Writing in the Legal Writing Classroom*, 9 J. LEGAL WRITING INST. 185, 187 (2003) ("Hundreds of studies document the benefits that accrue from using cooperative and collaborative learning and trace that use back several centuries.").

172. Inglehart et al., *supra* note 171, at 192. The authors acknowledge the overlap among these categories and that traits may well belong in two or all three categories. *Id.*

Develops problem-solving techniques
 Grasps relationship between background information and tasks in carrying out the process
 More readily embraces the task of learning
 Students' questions change from need for step-by-step instruction to more general guidance
 Results in better retention of subject matter

Emotional/Psychological

Students get to know each other better
 Students work together to overcome disagreements
 Students receive and provide support to each other
 Passivity disappears
 Students feel less anxiety
 Students gain greater self-esteem
 Students learn how to work with each other¹⁷³

Some of these benefits deserve to be highlighted. Most significantly, collaborative learning can increase the educational benefit law school provides: "Collaborative learning, in which students work together in small groups toward a common goal, can generate more learning than purely individual work."¹⁷⁴ Students are able to think more abstractly and remember what they learn. Numerous studies have confirmed that "students more frequently use higher-level cognitive and moral reasoning strategies through collaborative learning. They are also more likely to learn how to focus these strategies to solve problems and gain conceptual understanding."¹⁷⁵

Law students involved in collaborative learning also are forced to learn how to listen carefully to what their peers are saying. Thus, "working in groups teaches students to listen well and to reflect."¹⁷⁶ Moreover, collaborative learning encourages students to work with those who may be quite different from them. Law students can therefore receive important lessons in diversity as well.¹⁷⁷

Many law faculty who have experimented have reported that classes with collaborative learning can be more effective than when they

173. *Id.* at 193–94.

174. Floyd et al., *supra* note 51, at 269. "In true collaborative learning, the learners are responsible for one another's learning as well as their own, so that the success of one learner helps other students to be successful." *Id.*

175. Elizabeth A. Reilly, *Deposing the "Tyranny of Extroverts": Collaborative Learning in the Traditional Classroom Format*, 50 J. LEGAL EDUC. 593, 599 (2000); see also Bryant, *supra* note 6, at 474 ("The collaborative learning literature confirms that complex tasks that require higher thinking benefit the most from collaborative work.").

176. Reilly, *supra* note 175, at 599.

177. See, e.g., Bryant, *supra* note 6, at 473 ("Diversity in perspectives can be invaluable . . ."); see also David Dominguez, *Principle 2: Good Practice Encourages Cooperation Among Students*, 49 J. LEGAL EDUC. 386, 386 (1999) (describing the benefits of "a culturally based, highly relational exploration of course material. It stretches the shrunken persona of the typical law student into the many evolving and 'intersectional' public roles that are present in each student.").

utilize the traditional one-on-one Socratic dialog. Among the reported classroom benefits of collaborative learning are “increasing student class participation and subject matter interest, and keeping students on task.”¹⁷⁸

C. Changing the Law School Culture

Despite the benefits of collaboration to both faculty and students, it is beyond dispute that, “culture is difficult to change.”¹⁷⁹ There are many things that can be done, however, to change the culture of law schools, both for students and faculty.

The recent, though limited, increase in coauthorship may mean that the legal academy will become more receptive to reducing its insistence on individualist work products. Nonetheless, major changes are required if coauthorship is to become accepted as a truly valid component of legal research.

Coauthored pieces must be given “greater legitimacy” than they presently receive.¹⁸⁰ Those who have coauthored articles should not be viewed as lesser scholars than those who write alone. The quality of the work should be the only metric.

The single most important step for truly changing the law school culture regarding collaborative work would be to change the way coauthored pieces are considered in the promotion and tenure process.¹⁸¹ Currently, most law schools give only “token credit for coauthored works.”¹⁸² Not surprisingly, “the emphasis on sole-authored work in the promotion process is a strong disincentive to engage in collaborative work.”¹⁸³ In fact, untenured law faculty are often specifically advised to avoid coauthoring articles.¹⁸⁴

178. Inglehart et al., *supra* note 171, at 188.

179. Amy E. Sloan, *Step Right Up: Using Consumer Decision Making Theory to Teach Research Process In The Electronic Age*, 60 S.C. L. REV. 123, 145 (2008).

180. Michelle M. Mello & Kathryn Zeiler, *Empirical Health Law Scholarship: The State of the Field*, 96 GEO. L.J. 649, 694 (2008).

181. We must eliminate the tradition of advising untenured colleagues to avoid scholarly collaboration until they receive tenure. *See, e.g.*, Robert H. Abrams, *Sing Muse: Legal Scholarship for New Law Teachers*, 37 J. LEGAL EDUC. 1, 6 (1987) (“I do not recommend collaboration at the outset of a law school career [W]hen writing is evaluated in the tenure-review process, coauthored articles never count as much as do solo efforts.”).

182. George & Guthrie, *supra* note 60, at 560. This is not unique to law schools. *See, e.g.*, Elizabeth A. Corley & Meghna Sabharwal, *Scholarly Collaboration and Productivity Patterns in Public Administration: Analysing Recent Trends*, 88 PUB. ADMIN. 627, 628 (2010) (“[I]n promotion and tenure cases more emphasis is often placed on sole-authored work.”).

183. Mello & Zeiler, *supra* note 180, at 694.

184. *See, e.g.*, Abrams, *supra* note 181, at 6. (“[I] do not recommend collaboration at the outset of a law school career.”). Columbia Law School’s “Careers in Law Teaching Program,” has a website devoted to the question, “Do I Want to Be a

The obvious remedy is for law schools to treat cowritten articles with the same respect given to those that are individually written.¹⁸⁵ There must be an end to what is, in effect, a presumption that a coauthor is a freeloader, who has not done significant work on an article. Law schools should not emphasize “the relative ease of assigning credit for work,” to the exclusion of prolific, quality scholarship.¹⁸⁶

Law schools can also encourage collaboration among their faculties. Some schools provide specific funding for collaborative research.¹⁸⁷ Schools could also create either formal or informal mentoring programs, pairing senior and junior faculty.¹⁸⁸ Not only would such mentoring encourage collaboration, it could “help relieve some of the anxiety new scholars experience by demystifying the experience and explaining what will happen throughout the process.”¹⁸⁹

Law reviews can also play a significant role in creating more of a culture of collaboration. First, law reviews should encourage, if not require, the alphabetical listing of coauthors. In mathematics, more than any other field, authors are listed in alphabetical order.¹⁹⁰ This practice reflects a culture that sees, “[m]athematical collaborations [as] democratic endeavors, and all the participants are equals.”¹⁹¹ Alphabetical listing of authors would signify a view that coauthorship is a shared venture, and each author is presumed to be an equal participant.

Another change that law reviews can initiate is to reject *The Bluebook* rule that states when a publication has three or more authors,

Law Professor?” In discussing the need for Law Professors to publish, the website declares that, “doing academic research is often a solitary occupation (though faculty sometimes collaborate with colleagues or students).” *Do I Want to Be a Law Professor?*, COLUMBIA LAW SCH., <http://web.law.columbia.edu/law-teaching/what-you-need-know-about-law-school-teaching/do-i-want-be-professor> (last visited Oct. 9, 2014), archived at <http://perma.unl.edu/W8RC-N8FX>.

185. “By treating collaborative scholarship more favorably, law schools will remove a significant impediment to collaborative work, at least among relatively junior scholars who are candidates for tenure and promotion.” George & Guthrie, *supra* note 60, at 580.
186. McDermott & Hatemi, *supra* note 117, at 55. One simple solution would be for tenure committees to require that law professors who collaborate follow the lead of the mathematic Fields Medal winners, and write some significant individual articles along with their coauthored pieces. See *supra* text accompanying notes 27–29.
187. See Mello & Zeiler, *supra* note 180, at n.226 (“[G]eorgetown University Law Center provides research grants for collaborative research to cover costs of travel and other expenses.”).
188. George & Guthrie, *supra* note 60, at 581.
189. Hemingway, *supra* note 75, at 602.
190. See Waltman, *supra* note 141, at 706 (comparing alphabetical ordering in twenty-five fields).
191. KRANTZ, *supra* note 27, at 96–97.

only the first author's name is listed, followed by "et al."¹⁹² All authors of a piece should be listed when an article is cited.¹⁹³ This would both prevent the overemphasis on one author and ensure that all of the coauthors receive credit for their work.

Creating a law school culture of collaboration also requires a change in how students are taught. As Professor Mark Tushnet explains, "Legal education should prepare students for the practice of law. It would seem to follow that legal education should prepare students to do collaborative work."¹⁹⁴

On the most simple level, students need to not only be informed that when they graduate they will be entering a profession where collaboration is the norm, but that their effectiveness will be judged, at least in part, on how well they work with others.¹⁹⁵ However, that information is meaningless unless it is reinforced by the learning process in which law students are participating. Accordingly, collaborative work should be a recognized part of legal education at every stage of a law student's development.¹⁹⁶

Teaching law students teamwork, however, is not a simple task. "Teamwork must be taught. It does not come naturally, especially to many individuals who self-select for the legal profession."¹⁹⁷ Simply telling students to work together on a particular problem is a recipe for failure and frustration.¹⁹⁸

Most law students will not have had any real experience with successfully working together on an academic team.¹⁹⁹ Hence, they will

192. See THE BLUEBOOK: A UNIFORM SYSTEM OF CITATION R. 15, at 138 (Columbia Law Review Ass'n et al. eds., 19th ed. 2010).

193. George & Guthrie, *supra* note 60, at 582.

194. Tushnet, *supra* note 54, at 313.

195. See *supra* text accompanying notes 55–56.

196. Dilloff, *supra* note 61, at 439 ("Teamwork is something that can and should be taught in many law school classes.").

197. Weinstein, *supra* note 37, at 335; see also Bryant, *supra* note 6, at 461 ("Successful collaboration, however, does not come easily. It involves methods and skills that must be taught.").

198. See, e.g., Margaret Martin Barry et al., *Clinical Education for This Millennium: The Third Wave*, 7 CLINICAL L. REV. 1, 69–70 (2000) ("[M]erely bringing professionals together does not ensure that they will function well as a team or make appropriate collaborative decisions."); Elizabeth Cooley, *Training an Interdisciplinary Team in Communication and Decision-Making Skills*, 25 SMALL GROUP RES. 5, 6 (1994) ("[S]imply bringing together a group of professionals does not necessarily ensure that they will function effectively as a team or make appropriate decisions. Effective teamwork does not occur automatically.").

199. See Morton et al., *supra* note 77, at 191 ("Most law students consider teamwork a foreign concept."); Willauer, *supra* note 90, at 521 ("Many students have never been exposed to collaborative learning, and they may approach the new teaching style with skepticism.").

often have negative views towards collaborative work.²⁰⁰ Some will have a negative bias based on earlier failed academic experiences with group learning.²⁰¹ For many other law students their own competitive natures will make them suspicious of the process.²⁰²

Thus, law faculty must view collaborative learning as a set of skills that needs to be carefully taught.²⁰³ Students must be taught “how to listen, give feedback, analyze tasks, delegate work, [and] use conflicting views constructively.”²⁰⁴

D. What the New Culture Might Look Like

Fortunately, collaborative learning has begun to enter legal education.²⁰⁵ From these beginnings, we can see what the law schools might look like were collaborative learning to become commonplace. We can also learn how to make collaborative learning successful.

1. Clinics

The first segment of the legal academy to embrace collaborative learning was the clinical law faculty: “Clinical education in particular has been praised for providing students with numerous opportunities to work collaboratively, and clinical educators have generally recognized the benefits of collaborative pedagogy to prepare students for the practice of law.”²⁰⁶

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200. Evensen, *supra* note 51, at 385 (“[Law students] persistently held to notions of learning as an individual, idiosyncratic enterprise and appeared disdainful or dismissive of pedagogical attempts to encourage group activity.”).
201. *See, e.g., id.* at 362 (“[Law students] carried a negative bias toward groups from earlier educational experiences, especially from undergraduate days.”).
202. Daicoff, *supra* note 89, at 1349 (“Law students and law faculty agree nearly unanimously that law students are very competitive.”).
203. “[C]ollaboration must be skillfully organized and students re-aculturated to make collaborative learning successful.” Bryant, *supra* note 6, at 485 n.107. *See also* Silecchia, *supra* note 143, at 832 (“[C]ollaborative exercises must be well-planned. If done effectively, they will provide good practical training for a large part of students’ future work.”).
204. Bryant, *supra* note 6, at 485; *see also* Weinstein, *supra* note 37, at 327 (“[C]ollaborative work involves more, including communication skills; knowledge about other disciplines, including their range of coverage and limitations; understanding of group process and team-building; self- and other-awareness, including the effects of one’s behaviors on others; and leadership skills.”).
205. *See* Rogers, *supra* note 45, at 149 (“[T]he cooperative learning movement, prevalent within the field of education, has found its way to a limited degree into a few legal education circles.”); *see also* O’Grady, *supra* note 72, at 485 (“Legal education is currently taking tentative steps beyond teaching lawyering skills toward a focus on professional collaborative relationships and human interactions.”).
206. In 1995, it was noted that “some aspects of legal education—notably, some forms of clinical legal education—do stress collaboration as an important aspect of the educational process.” O’Grady, *supra* note 72, at 514 n.129 (quoting Tushnet, *supra* note 54, at 313).

Law students in clinics typically work together on a wide range of issues.²⁰⁷ Moreover, students often collaborate closely with the faculty and other supervisory attorneys. As one student described her clinical experience:

It's all collaborative. I'm doing a lot of writing right now with my supervising attorney and my law fellow. And we just finished writing a motion for approval of a settlement agreement. We wrote early drafts of pretrial reports and letters, all of which were collaborative. I'd do a draft; they'd make revisions. They were either happy with it and we'd keep revising that way, or we'd sit down and work together to figure out how to restructure documents.²⁰⁸

Clinics can also give law students the opportunity to collaborate with clients.²⁰⁹ The U.C. Davis Immigration Law Clinic, for example, "teaches students that they must collaborate with clients in formulating legal strategies. Emphasizing careful listening skills and sensitivity to client needs, [the clinic attorneys hope] students, as well as clients, learn larger lessons."²¹⁰

Other clinics focus on training law students in the distinct skill of collaborating with "experts and consultants adjunct to the provision of legal services."²¹¹ One of the pioneers in this type of collaboration was the Securities Arbitration Clinic at Pace Law School, which provides free legal assistance to small investors who have arbitrable disputes with their securities brokerage firms.²¹² Law students in that clinic work closely with students from Pace University's Lubin School of Business; as a result of their collaboration, "[t]he business students have helped the law students determine whether there is in fact a viable claim in a case, calculated measures of damages, and evaluated the strength of settlement offers."²¹³

207. See, e.g., W. Warren H. Binford, *Reconstructing a Clinic*, 15 CLINICAL L. REV. 283, 514 n.109 (2009) (describing law students as "working together as a team, and enjoying a social element law school students too often lack in their law school work").

208. Evensen, *supra* note 51, at 377.

209. See Louise G. Trubek & Jennifer J. Farnham, *Social Justice Collaboratives: Multidisciplinary Practices for People*, 7 CLINICAL L. REV. 227, 270-71 (2000) ("Clinical teaching emphasizes how to collaborate with clients.").

210. Kevin R. Johnson & Amagda Pérez, *Clinical Legal Education and the U.C. Davis Immigration Law Clinic: Putting Theory into Practice and Practice into Theory*, 51 SMU L. REV. 1423, 1456 (1998).

211. Jill I. Gross & Ronald W. Filante, *Developing a Law/Business Collaboration Through Pace's Securities Arbitration Clinic*, 11 FORDHAM J. CORP. & FIN. L. 57, 74-75 (2005); see also MACCRATE REPORT, *supra* note 58, at 210 (stating that "if the representation of a particular client requires knowledge that the lawyer does not presently possess" adequate representation may require, "the lawyer's enlisting the aid of other lawyers or experts from other fields").

212. Gross & Filante, *supra* note 211, at 58.

213. *Id.* at 74.

A related form of collaboration that is taught in many clinics is multidisciplinary practices (MDPs).²¹⁴ An MDP is basically “[a] firm that includes both attorneys and members of other professions.”²¹⁵ Clinics around the country have taught law students how to work with doctors,²¹⁶ social workers,²¹⁷ and accountants.²¹⁸

2. *Legal Reasoning and Writing Programs*

Collaboration has also become a major component of many law schools’ legal reasoning and writing programs.²¹⁹ Legal writing pro-

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214. Trubek & Farnham, *supra* note 209, at 272.
215. Kathryn Lolita Yarbrough, *Multidisciplinary Practices: Are They Already Among Us?*, 53 ALA. L. REV. 639, 640–41 (2002) (The ABA has defined MDPs as “a partnership, professional corporation, or other association or entity that includes lawyers and nonlawyers and has as one, but not all, of its purposes the delivery of legal services to a client(s) other than the MDP itself or that holds itself out to the public as providing nonlegal, as well as legal, services”); see also AM. BAR ASS’N COMM’N ON MULTIDISCIPLINARY PRACTICE, REPORT TO THE HOUSE OF DELEGATES (2000), archived at <http://perma.unl.edu/HPZ4-H7T7> (recommending ethical rules for lawyers practicing in MDPs).
216. “[T]he medical-legal partnership (MLP) movement . . . integrates lawyers into the healthcare team to provide high-quality, comprehensive services that address the social, economic, political, and cultural underpinnings of patient health.” Emily A. Benfer, *Educating the Next Generation of Health Leaders: Medical-Legal Partnership and Interprofessional Graduate Education*, 35 J. LEGAL MED. 113, 114 (2014). “Currently, more than 60 graduate schools host MLPs.” *Id.*; see also Morton et al., *supra* note 77, at 175 (describing the “medical-legal collaboration between California Western and the University of California at San Diego . . .”); Elizabeth Tobin Tyler, *Allies Not Adversaries: Teaching Collaboration to the Next Generation of Doctors and Lawyers to Address Social Inequality*, 11 J. HEALTH CARE L. & POL’Y 249, 252 (2008) (describing the Rhode Island Medical-Legal Partnership for Children between Roger Williams University School of Law and the Warren Alpert Medical School of Brown University).
217. See Jacqueline St. Joan, *Building Bridges, Building Walls: Collaboration Between Lawyers and Social Workers in a Domestic Violence Clinic and Issues of Client Confidentiality*, 7 CLINICAL L. REV. 403 (2001); see also Louise G. Trubek, *Context and Collaboration: Family Law Innovation and Professional Autonomy*, 67 FORDHAM L. REV. 2533, 2535, 2537 (1999) (describing the “Family Center” in which a collaboration of “lawyers and social workers encourages efforts to expand family law services.”); see generally Trubek & Farnham, *supra* note 209, at 229 (“The concept of social workers, social service agencies and lawyers working together is a longstanding but contested aspiration of many interested in the positive use of law to help people of low income.”).
218. See, e.g., Anthony J. Luppino, *Minding More Than Our Own Business: Educating Entrepreneurial Lawyers Through Law School-Business School Collaborations*, 30 W. NEW ENG. L. REV. 151, 179 (2007) (saying that transactional and small business clinics provide “law students with hands-on opportunities to interact with clients trained in other disciplines, and with their clients’ accountants and other advisors”).
219. Cobb & Kaltsounis, *supra* note 42, at 156 (“Collaboration in legal writing classrooms has become increasingly common.”).

grams are a natural fit for collaborative work, especially since so much of most lawyers' work involves joint writing:

Very often, a lawyer—particularly a new lawyer—will be asked to write a portion of a brief, or to make an initial draft of a letter that others will edit, or to update research memoranda initially written by colleagues. There is very little in most students' experiences to prepare them for this type of writing. Hence, collaboration training in the legal writing classroom would be valuable.²²⁰

One of the most common collaborative exercises in legal writing classes involves “[p]eer editing, also referred to as peer review, [which] is a form of collaborative learning in which students review and critique each other’s work.”²²¹ When done correctly, the peer review experience helps students “improve their editing, analysis, and writing skills; and develop increased self-confidence.”²²² It also affords “the opportunity for them to work as part of a team, providing mutual support and helping each other succeed.”²²³

Law professors experienced with peer review warn that successful implementation requires sensitivity to law students' concerns about the unfairness of one person's grade being dependent on the work of another student who may not be as hard working or diligent. Accordingly, Prof. Hill recommends that the grade a student receives on a writing assignment that is the subject of review be “completely independent of the peer-editing exercise.”²²⁴ Another approach is to provide a detailed “Structured Peer Review Worksheet,” so that students are guided in providing constructive comments.²²⁵

220. Silecchia, *supra* note 143, at 831.

221. Cassandra L. Hill, *Peer Editing: A Comprehensive Pedagogical Approach to Maximize Assessment Opportunities, Integrate Collaborative Learning, and Achieve Desired Outcomes*, 11 NEV. L.J. 667, 671 (2011) (footnotes omitted).

222. *Id.* at 671–72.

223. *Id.* at 672.

224. *Id.* at 691.

225. Floyd et al., *supra* note 51, at 303. Professor Floyd's worksheet contains the following steps:

- (1) The number of times first person (I, We) is used: _____.
- (2) The number of times second person (You) is used: _____.
- (3) The number of times the client's name is used: _____.
- (4) The longest paragraph has ____ sentences, and the shortest paragraph has ____ sentences. *[write the exact number of sentences in the blanks]*
- (5) The longest sentence has ____ words, and the shortest sentence has ____ words. *[write the exact number of words in the blanks]*
- (6) Other than professional, I would describe the overall tone of the draft as: _____.
- (7) Write one sentence that you consider to be one of the strongest: *[write complete sentence as it appears in the original paragraph]*
- (8) Explain why you selected the sentence in the immediately preceding question:
- (9) Write one sentence that you consider needs the most revision: *[write complete sentence as it appears in the original paragraph]*

A different approach used by many legal writing programs is collaborative writing. At Northwestern, for example, students were assigned “to research and write the first graded draft of their open research memorandum collaboratively. Each student then individually rewrote the open memo.”²²⁶ This approach combines both individual and collaborative work. The faculty found special benefits from the collaborative portion of the assignment:

Because the final written product had to satisfy both of them, they had to put more thought into justifying their analysis, and their analysis tended to become more thoughtful and sophisticated as a result of discussing it at length with each other. They also acted as editors to improve each other’s writing and as proofreaders to eliminate typos. As a result, their joint written products were, on average, better than their individually written products.²²⁷

3. Collaboration in Other Courses

Individual faculty members can create opportunities for collaborative work in other classes, regardless of class size. A collaborative learning assignment “focuses on group work toward a unified final product.”²²⁸ In a collaborative project, “group members negotiate tasks, roles, and responsibilities.”²²⁹ Most significantly, though, students are informed that the project will be “all or partially group produced and all or partially group graded.”²³⁰

Professor Dorothy Evensen gave several examples of how teachers incorporated collaborative learning into their classes:

One student gave the example of a professor who handed out pre-exam questions for small group discussions, while another student told of the professor who actually gave a group exam. A female student praised a Constitutional

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- (10) Explain why the sentence is the most in need of revision:
 - (11) Write a possible revision of the sentence that addresses the concern in the preceding question:
 - (12) Select the word or phrase that you would most like to incorporate into your letter:
 - (13) What, if anything, is missing from the excerpt: *[insert topics, concepts, phrases, or words that could be included in the paragraph]*
 - (14) Circle any grammar, punctuation, or spelling mistakes on the original.
 - (15) Write any additional comments in the space below:

Id.

226. Inglehart et al., *supra* note 171, at 207.
227. *Id.* at 210. Another approach is to have legal writing students collaborate on writing an appellate court opinion: “Appellate opinion drafting is an excellent teaching vehicle in legal writing classes because working on judicial opinions in groups helps students—especially first-year students—understand core judicial processes.” Cobb & Kaltsounis, *supra* note 42, at 172.
228. Zimmerman, *supra* note 50, at 961.
229. Inglehart et al., *supra* note 171, at 188. According to Professor Inglehart, “the goal of collaborative learning is a group project in which the group process will produce a better final product through the students’ discourse.” *Id.* at 188–89.
230. *Id.* at 188.

Law class where students were responsible for collaboratively creating hypotheticals, designing lessons, and grading exams.²³¹

Other teachers convert Socratic questioning into a group activity. With the “think, pair[,] and share” strategy, for instance, students first think about the answer to a question in class, then work in pairs to discuss the results of their thinking.²³² Another approach is to divide students into teams of “little law firms.”²³³ Some professors call on an entire firm and permit firm members to collaborate before responding to a question.²³⁴ Professor Neil J. Dilloff uses these “little law firms” in his class on alternative methods of dispute resolution, creating “negotiating teams, teams of mediators and arbitrators, and teams of ‘attorneys’ and ‘clients’ in many of the simulations.”²³⁵

4. Institutional Change

An outdated honor code can impede, if not prohibit, valid collaborative work among law students.²³⁶ If all collaborative work without the express authorization of a professor is considered cheating, law students will be even less inclined to work with their peers.²³⁷ One proposed model honor code would have two presumptions: collaboration would be presumed permissible (unless the professor explicitly indicated otherwise) for class preparation and nongraded work, and presumed prohibited (unless the professor explicitly indicated otherwise) for all graded assignments.²³⁸

231. Evensen, *supra* note 51, at 379.

232. Fines, *supra* note 38, at 914.

233. Dilloff, *supra* note 61, at 440 & n.49. “‘Little law firms’ is Professor Michael P. Van Alstine’s term for his teamwork approach during his commercial law and transaction classes at the University of Maryland School of Law.” *Id.*

234. Rogers, *supra* note 45, at 150. Professors using this system often require each student in a firm to give an answer during the course of the semester, “thus preventing one of the major criticisms of a cooperative learning method, which is that certain students will tend to slack off while the other more responsible students will produce most of the work.” *Id.*

235. Dilloff, *supra* note 61, at 440.

236. See Willauer, *supra* note 90, at 527 (“Law school honor codes, which shape and often define the culture of a law school, reinforce this individualized competitive learning by defining cooperation as cheating.”).

237. *Id.* at 527 (noting that Washburn University Law School’s honor code bars “[a]cademic improprieties in all its forms[—]in course work, on examinations, or in other academically related activities, including but not limited to: . . . collaborating with any person without authorization from the supervising professor.” (alterations in original) (quoting *Policies: Honor Code and Procedure for Law Students*, WASHBURN UNIV. SCH. OF LAW, <http://washburnlaw.edu/policies/honorcode.html> (last visited Oct. 8, 2014), archived at <http://perma.unl.edu/9UVT-QGZ8>) (internal quotation marks omitted)

238. *Id.* at 535.

Current grading policies also can deter collaborative work.²³⁹ Since grades are of such importance to most students, some law professors have tried to create “an incentive structure that strongly encourage[s] collaborative work.”²⁴⁰ Other fields, such as business schools, “often have group projects that result in a grade for the entire group Given the evolving legal market, perhaps law schools should consider restructuring certain classes in a manner that will reward collaboration.”²⁴¹

V. CONCLUSION

Law schools do not need to create their own version of an Erdős number in order to create a collaborative culture similar to that of the mathematical community.²⁴² Rather, what is required is a recognition of the numerous benefits that derive from working together and the subsequent need for responsible legal educators to prepare our students for a collaborative legal field.

It would also help to realize that collaboration does not mean the demise of individual effort, individual responsibility, or individual rewards. One can coauthor an article without losing one’s intellectual or professional identity. When properly understood, collaboration is not the opposite of individualism, but a vital part of the process whereby an individual can achieve more of his or her unique potential.

239. See *supra* text accompanying notes 51–54.

240. Tushnet, *supra* note 54, at 315. Prof. Tushnet said he wanted to “design an examination system that would systematically allocate higher grades to those who worked collaboratively.” He reported he was unsuccessful in this endeavor. *Id.* at 324.

241. Alison Nina Bernard & Niki Kopsidas, *Building “Collaborative Intelligence” in a Challenging Legal Market*, N.Y. L.J., April 21, 2014, at S9.

242. Though just such an attempt was made in Edelman & George, *supra* note 97, at 36.

APPENDIX A

"Top 50 General Law Reviews"²⁴³

- 1 Harvard Law Review
- 2 Columbia Law Review
- 3 The Yale Law Journal
- 4 Stanford Law Review
- 5 Michigan Law Review
- 6 California Law Review
- 7 University of Pennsylvania Law Review
- 8 Texas Law Review
- 9 Virginia Law Review
- 10 Minnesota Law Review
- 11 UCLA Law Review
- 12 The Georgetown Law Journal
- 13 New York University Law Review
- 14 Cornell Law Review
- 15 Northwestern University Law Review
- 16 Fordham Law Review
- 17 Notre Dame Law Review
- 18 Vanderbilt Law Review
- 18 William and Mary Law Review
- 20 The University of Chicago Law Review
- 21 Iowa Law Review
- 22 Boston University Law Review
- 23 Duke Law Journal
- 24 North Carolina Law Review
- 25 Emory Law Journal
- 26 Southern California Law Review
- 27 Cardozo Law Review
- 28 Boston College Law Review
- 28 The George Washington Law Review
- 30 UC Davis Law Review
- 31 Hastings Law Journal
- 32 Indiana Law Journal
- 32 University of Illinois Law Review
- 34 Wisconsin Law Review
- 35 Wake Forest Law Review
- 35 Washington and Lee Law Review
- 37 Florida Law Review
- 38 American University Law Review

243. According to the Washington and Lee's 2011 Law Journal Rankings Project, WASHINGTON & LEE UNIV. SCH. OF LAW, <http://lawlib.wlu.edu/LJ/indexOlderYears.aspx> archived at <http://perma.unl.edu/42GY-QX8K> (select "2011 Combined Score"; then follow "submit" hyperlink).

- 38 Houston Law Review
- 40 Ohio State Law Journal
- 41 Connecticut Law Review
- 42 Washington University Law Review
- 43 Arizona Law Review
- 43 University of Colorado Law Review
- 45 Lewis & Clark Law Review
- 46 Brooklyn Law Review
- 47 University of Cincinnati Law Review
- 48 Michigan State Law Review
- 49 Hofstra Law Review
- 50 Alabama Law Review
- 50 DePaul Law Review

APPENDIX B

“Top 20 Specialized Law Reviews”²⁴⁴

- 1 Harvard Journal of Law & Technology
- 2 American Journal of International Law
- 3 Harvard International Law Journal
- 4 Supreme Court Review
- 5 Virginia Journal of International Law
- 6 Harvard Civil Rights-Civil Liberties Law Review
- 7 Harvard Journal of Law & Public Policy
- 8 Berkeley Technology Law Journal
- 8 The Harvard Environmental Law Review
- 10 Yale Journal on Regulation
- 11 Journal of Legal Analysis
- 12 Harvard Journal on Legislation
- 13 University of Pennsylvania Journal of Constitutional Law
- 14 The Journal of Criminal Law and Criminology
- 15 The American Journal of Comparative Law
- 16 Columbia Journal of Transnational Law
- 17 Journal of Empirical Legal Studies
- 18 Law and Contemporary Problems
- 19 University of Michigan Journal of Law Reform
- 20 The Journal of Legal Studies

244. According to the Washington and Lee's 2011 Law Journal Rankings Project, WASHINGTON & LEE UNIV. SCH. OF LAW, <http://lawlib.wlu.edu/LJ/indexOlderYears.aspx>, archived at <http://perma.unl.edu/42GY-QX8K> (select “specialized” and “2011 Combined Score”; then follow “submit” hyperlink).