LAWYERING OUTSIDE THE BOX: CONFRONTING THE CREATIVITY CRISIS

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I. INTRODUCTION

"*We will not succeed in navigating the complex environment of the future by peering relentlessly into a rear view mirror. To do so, we would be out of our minds.*"[1]

Between December 2007 and June 2009 the United States went through its longest, and by most measures worst, economic recession since the Great Depression.[2] Labeled the "Great Recession,"[3] this economic crisis struck after the United States housing market was pounded by shortfalls in subprime mortgages.[4] The disruption in the United States residential mortgage credit market led to the freezing of financial markets in the United States and globally, eventually resulting in a world-wide recession.[5]

Not only a defining moment in world history and for the United States economy, the Great Recession is having a devastating impact on the legal profession.[6] The economic meltdown led to unparalleled layoffs,[7] salary

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1. KEN ROBINSON, OUT OF OUR MINDS: LEARNING TO BE CREATIVE xiii (2d ed. 2011).
2. Peter Coy, *The Great Recession: An 'Affair' to Remember*, BUSINESSWEEK (Oct. 11, 2012), http://www.businessweek.com/articles/2012-10-11/the-great-recession-an-affair-to-remember.
3. ASSOCIATED PRESS 2010 STYLEBOOK AND BRIEFING ON MEDIA LAW 127 (Darrell Christian et al. eds., 2010). The Associated Press Stylebook added the term the "Great Recession" to its 2010 edition and defined it as "[t]he recession that began in December 2007 and became the longest and deepest since the Great Depression of the 1930s. It occurred after losses on subprime mortgages battered the U.S. housing market." *Id.*
4. *Id.*
5. Eli Wald, *Foreword: The Great Recession and the Legal Profession*, 78 FORDHAM L. REV. 2051, 2051 (2010).
6. *Id.*
7. *Id.*; *see also Layoff Tracker*, LAW SHUCKS, http://lawshucks.com/layoff-tracker/ (last visited Apr. 5, 2013) (reporting that major law firms alone laid off more than 14,347 people—5632 lawyers and 8715 staff—between January 1, 2008, and January 31, 2010).

reductions,[8] hiring suspensions,[9] and even deaths.[10] While the Great Recession technically came to a close in 2009, its impact is still being felt.

The long-term consequences of the economic downturn on the legal profession are uncertain.[11] Some believe that the changes are merely cyclical.[12] Others, however, believe that the current state of affairs represents a long-term structural adjustment in the legal services market that will adversely impact the legal profession permanently.[13]

For the legal profession to survive, lawyers must implement real changes.[14] The changing legal landscape requires creative and innovative solutions. Yet, in the wake of the need for creative approaches to address

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8. *See, e.g.*, Wald, *supra* note 5, at 2051; Martha Neil, *Some BigLaw Leaders Still Ponder: How Low Can Associate Salaries Go?*, A.B.A. J. (Oct. 6, 2009, 12:07 PM CDT), http://www.abajournal.com/weekly/some_biglaw_leaders_still_ponder_how_low_can_associate_ salaries_go (examining the reduction in associate salaries at large law firms); Debra Cassens Weiss, *First Year Associates Bear the Brunt of Lower Bonuses; Some See Cuts of 71%*, A.B.A. J. (Dec. 21, 2009, 9:09 AM CDT), http://www.abajournal.com/news/article/first-year_ associates_ bear_the_brunt_of_lower_bonuses_some_see_cuts_of_71/ (describing the reduction in salaries and bonuses for lawyers).
9. Wald, *supra* note 5, at 2052; Matt Masich, *Law School Career Offices Seek Fix for More Lawyers, Fewer Jobs*, LAW WK. ONLINE (Oct. 21, 2009), http://www.lawweekonline.com/2009/ 10/career-offices-seek-fix-for-more-lawyers-fewer-jobs/ (examining the effect of the Great Recession on hiring of law school graduates from a top-fifty law school); Debra Cassens Weiss, *Downturn's Losers: BigLaw, 'Entitled' Associates, Top Schools*, A.B.A. J. (May 7, 2009, 10:12 AM, CDT), http://www.abajournal.com/news/article/downturns_losers_biglaw_entitled_ associates_top_schools (noting the Great Recession's impact on recruitment at elite law schools); *see also* William D. Henderson & Andrew P. Morriss, *What Rankings Don't Say About Costly Choices*, NAT'L L.J. (Apr. 15, 2008), http://www.law.com/jsp/article.jsp?id=900005561381& What_Law_School_Rankings_Dont_Say_About_Costly_Choices. The suspensions caused an astonishing number of unemployed law school graduates across the country. Wald, *supra* note 5, at 2052.
10. Wald, *supra* note 5, at 2051-52; Richard B. Schmitt, *A Death in the Office*, A.B.A. J., Nov. 2009, at 30, *available at* http://www.abajournal.com/magazine/article/a_death_in_the_office/ (describing a prominent litigator's suicide after being laid off due to the recession).
11. RICHARD SUSSKIND, THE END OF LAWYERS? RETHINKING THE NATURE OF LEGAL SERVICES xxi (2d ed. 2010); BRIAN Z. TAMANAHA, FAILING LAW SCHOOLS 168 (2012); *see also* Brian Leiter, *The Upheaval in the Market for New Lawyers at the Big Law Firms: Temporary or Permanent?*, BRIAN LEITER'S L. SCH. REP. (Apr. 30, 2009, 1:57 PM), http://leiterlawschool.typepad.com/ leiter/2009/04/the-upheaval-in-the-market-for-new-lawyers-at-the-big-law-firms-temporary-or-permanent.html.
12. *See* TAMANAHA, *supra* note 11, at 168; Leiter, *supra* note 11.
13. TAMANAHA, *supra* note 11, at 168; Wald, *supra* note 5, at 2052. A 2009 survey conducted by LexisNexis revealed that more than fifty percent of the attorneys surveyed thought that the Great Recession will permanently change the legal profession. LEXISNEXIS, STATE OF THE LEGAL INDUSTRY SURVEY: COMPLETE SURVEY FINDINGS 10 (2009); *see also* Larry E. Ribstein, *The Death of Big Law*, 2010 WIS. L. REV. 749, 751; Joyce S. Sterling & Nancy Reichman, *So, You Want to Be a Lawyer? The Quest for Professional Status in a Changing Legal World*, 78 FORDHAM L. REV. 2289, 2291 (2010).
14. Rachel J. Littman, *Finding the Silver Lining: The Recession and the Legal Employment Market*, N.Y. ST. B.J., Sept. 2009, at 16, 20, *available at* http://digitalcommons.pace.edu/cgi/ viewcontent.cgi?article=1598&context=lawfaculty.

the changing legal landscape, a disturbing phenomenon was recently identified: creativity in the United States is declining.[15]

Fortunately, creativity can be taught.[16] In fact, fostering creativity is a vital facet of an education that promotes judicious analysis, varying viewpoints, and original thought.[17] The legal profession in the United States, however, discourages and suppresses creativity.[18]

This Article argues that, in light of the changes to the legal profession caused by the economic downturn and the recognition that lawyers will need to be creative to adapt to the changes in the legal market, legal educators and the legal profession should strive to foster creativity. Part II discusses the Great Recession and the changes occurring in law practice as reasons why legal educators and the legal profession should foster creativity. Subsequently, Part III provides a summary of the science of creativity. Part IV then addresses the creativity crisis. Finally, Part V introduces some of the barriers to creativity in legal education and the profession.

II. LEGAL LANDSCAPE

Commencing in December 2007, the Great Recession battered the United States and global economies.[19] This prolonged economic slump was the longest, deepest, and most extensive of the thirteen recessions that the United States had endured since the Great Depression of 1929-32.[20] The Great Recession was an inflection point for the United States economy.[21] Over half of working adults in the United States had work-related hardships, and the wealth of the average American household declined significantly.[22]

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15. Kyung Hee Kim, *The Creativity Crisis: The Decrease in Creative Thinking Scores on the Torrance Tests of Creative Thinking*, 23 CREATIVITY RES. J. 285, 292-93 (2011).
16. *See* discussion *infra* Part IV.C.
17. Wald, *supra* note 5, at ix.
18. *See infra* Part V.
19. The causes of this unparalleled recession were an "inflated housing market driven higher by easy credit, excessive leverage in the financial system, speculative excess in the hedge fund industry, staggeringly high trade deficits and an American consumer that relied too much on credit to finance their extravagant purchases." *Definition of the Great Recession*, DAVEMANUEL.COM, http://www.davemanuel.com/investor-dictionary/the-great-recession/. Technically, this recession came to its conclusion in June of 2009. *See* Coy, *supra* note 2.
20. Pew Research Ctr., *A Balance Sheet at 30 Months: How the Great Recession has Changed Life in America*, at 1 (2010), *available at* http://www.pewsocialtrends.org/files/2010/11/759-recession.pdf [hereinafter *Balance Sheet*]; *see also* Coy, *supra* note 2 (noting the current slump is incomparable to anything that has transpired in the last sixty years).
21. Wald, *supra* note 5, at 2051.
22. Fifty-five percent of working adults in the United States reported that the recession caused them to face a work-related hardship. *See Balance Sheet*, *supra* note 20, at 1 (noting that hardships included a "spell of unemployment, a cut in pay, a reduction in hours or an involuntary move to

Although "lawyers were not principal villains in the Great Recession,"[23] the economic downturn has placed the legal profession in a position of unprecedented stress.[24] In the wake of the recession, law firms laid off a record number of lawyers and staff.[25] Even after the recession, an estimated 9500 lawyers were laid off from the 250 largest law firms in 2009 and 2010.[26]

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part-time work"). Young adults took the biggest hit in the job market. *See id.* at 1, 22; THEO SPARREBOOM ET AL., INTERNATIONAL LABOUR OFFICE, GLOBAL EMPLOYMENT TRENDS FOR YOUTH 2012, at 7 (2012), *available at* http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/ publication/wcms_180976.pdf ("[N]early 75 million youth are unemployed around the world, an increase of more than 4 million since 2007."). Moreover, the wealth of the average American household declined twenty percent. *Balance Sheet*, *supra* note 20, at 1 (noting that this represents the "deepest such decline in the post-World War II era").

23. Wald, *supra* note 5, at 2055-56. Wald states:

> Lawyers did not play a leading role in the deregulation efforts of the 1980s and 1990s, did not influence the Federal Reserve's policy of not monitoring high-risk lending entities in the residential mortgage credit market, and were not the primary architects behind the aggressive and increasingly risk-taking behavior of financial institutions.

Id. Lawyers, however, "may have been involved in wrongdoing in the latter stages of the bailout." *Id.* at 2056 n.27; *see also* David Wilkins, *Teams of Rivals? Toward a New Model of Corporate Attorney-Client Relationship*, 78 FORDHAM L. REV. 2067, 2068 n.5 (2010).

24. Daniel Thies, *Rethinking Legal Education in Hard Times: The Recession, Practical Legal Education, and the New Job Market*, 59 J. LEGAL EDUC. 598, 599 (2010).

25. *See* ARI KAPLAN, THE EVOLUTION OF THE LEGAL PROFESSION 2 (2010), *available at* http://arikaplanadvisors.com/DiscoverReadyFINAL2011.pdf ("The legal industry suffered an unprecedented contraction in 2009 with over 12,000 layoffs at 138 large firms."); Ribstein, *supra* note 13, at 751 ("Law firms disclosed that they laid off 12,196 people in 2009, including 4,633 lawyers and 7,563 staff."); Martha Neil, *731 Lawyers and Staff Laid Off Monday at Morgan Lewis, K&L Gates and White & Case*, A.B.A. J. (Mar. 9, 2009, 2:14 PM CDT), http://www.abajournal.com/news/article/kl_gates_axes_115_sends_memo_good_people_will_be_looking_for_jobs/ (noting that almost 2500 law services jobs were lost in a ten day period in February of 2009).

Between 2007 and 2009, over 40,000 legal services jobs disappeared. *Compare* BUREAU OF LABOR STATISTICS, U.S. DEP'T OF LABOR, THE EMPLOYMENT SITUATION: OCTOBER 2009 Table B-1 (2009), *available at* http://www.bls.gov/news.release/archives/empsit_11062009.pdf (setting forth statistics regarding the number of non-seasonally adjusted legal services positions in October 2009), *with* BUREAU OF LABOR STATISTICS, U.S. DEP'T OF LABOR, THE EMPLOYMENT SITUATION: JANUARY 2008 Table B-1 (2009), *available at* http://www.bls.gov/news.release/archives/empsit_02062009.pdf (setting forth statistics regarding the number of non-seasonally adjusted legal services positions in December 2007).

The nation's largest law firms were particularly impacted. Ribstein, *supra* note 13, at 751. In September 2009, it was reported that the top 250 law firms laid off four percent of their lawyers, including 8.7 percent of their associates. Leigh Jones, *2009 Worst Year for Lawyer Headcount in 3 Decades, Says 'NLJ 250' Survey*, LAW.COM (Nov. 9, 2009), http://www.law.northwestern.edu/career/markettrends/2009/frluv6a8oa1r.pdf ("Among the top 75 law firms on the list, 15 had reductions of more than 100 lawyers.").

26. *Law Firms: A Less Guilded Future*, ECONOMIST (May 5, 2011), http://www.economist.com/node/18651114. Legal service workers were still losing jobs in May 2010. Ross Todd, *Legal Sector Loses 1,100 Jobs in April*, AM. L. DAILY (May 7, 2010, 12:33 PM), http://amlawdaily.typepad.com/amlawdaily/2010/05/april-jobs.html ("Since April 2009, the legal sector has lost a total of roughly 28,000 jobs.").

In addition to layoffs, historic unemployment has resulted due to hiring freezes and rescinded offers.[27] To cut costs, law firms also cut salaries, deferred starting dates of new associates, and reduced annual payouts to partners.[28] While some firms survived through layoffs and downsizing, others have completely collapsed.[29]

Law students graduating today are faring worse than experienced attorneys. Pursuant to the ABA's data of 2011 graduates of domestic ABA-approved law schools, just over fifty percent have full-time, long-term legal jobs.[30] This erosion in legal job opportunities has led to a sharp decline in law school applications.[31]

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27. Herwig Schlunk, *Mamas 101: Is a Law Degree a Good Investment Today?*, 36 J. LEGAL PROF. 301, 302 (2012); Wald, *supra* note 5, at 2051.

28. *See, e.g.*, Ribstein, *supra* note 13, at 751; Michael J. de la Merced, *The Legal Profession Feels the Pain of the Recession*, N.Y. TIMES, Mar. 26, 2009, at F2; *No Arguing With These Figures: Recession Slamming Law Firms*, CHI. SUN TIMES, Apr. 7, 2009, at 7; Carol J. Williams, *New Lawyers Turn to Public Interest*, L.A. TIMES, Apr. 6, 2009, at A6.

29. *See* Alan Feuer, *A Study in Why Major Law Firms are Shrinking*, N.Y. TIMES, June 7, 2009, at MB1, *available at* http://www.nytimes.com/2009/06/07/nyregion/07law.html (discussing firms that closed offices or closed completely); Hindi Greenberg, *"You're History." Now What?,* A.B.A. J., Jan. 2009, at 56, 56, *available at* http://www.abajournal.com/magazine/article/youre_history._now_what/ (discussing firm of Heller Ehrman); Nathan Koppel, *Recession Batters Law Firms, Triggering Layoffs, Closings*, WALL ST. J., Jan. 26, 2009, at A1; Lynne Marek, *Reports of Suicides Point to Job Stress*, NAT'L L.J. (May 11, 2009), http://www.law.com/jsp/nlj/PubArticlePrinterFriendlyNLJ.jsp?id=1202430579215. (addressing the recession's impact on McDermott Will & Emery).

30. *Employment Summary Report*, AM. BAR ASSOC. SEC. ON LEGAL EDUC., http://employmentsummary.abaquestionnaire.org/ (select class "2011" under "Compilation All-Schools Data" section; then click "Download Complete Employment Data") (last visited Jan. 31, 2013); *see also* Joe Palazzolo, *Law Grads Face Brutal Job Market*, WALL ST. J. (June 25, 2012, 10:18 AM), http://online.wsj.com/article/ SB10001424052702304458604577486623469958142.html; Debra Cassens Weiss, *Only 55 Percent of 2011 Law Grads Had Full-Time Long-Term Legal Jobs, Analysis Shows*, A.B.A. J. (June 19, 2012, 6:33 AM CDT), http://www.abajournal.com/news/article/only_55_percent_of_2011_law_grads_had_full-time_long-term_legal_jobs_analys/. Full-time, long-term jobs are defined as "jobs that require bar passage or are judicial clerkships and are for at least 35 hours per week and have an expected duration of at least one year." *Class of 2011 Legal Employment and Underemployment Numbers Are In, and Far Worse than Expected*, LAW SCH. TRANSPARENCY (June 15, 2012, 5:30 PM), http://www.lawschooltransparency.com/2012/06/class-of-2011-legal-employment-and-underemployment-numbers-are-in-and-far-worse-than-expected/. The ABA data on these jobs was summed up as follows:

> At 73 law schools (37.1%), less than 50% of graduates had these legal jobs. 30 schools (15.2%) had less than 40%. 10 schools (5.1%) had less than 33%. 89 schools (45.2%) exceeded the national rate of 55.2%. 31 schools (15.7%) had more than 67%. 19 schools (9.6%) had more than 75%. 5 schools (2.5%) had more than 90%.

Id.; s*ee also* William D. Henderson, *A Blueprint for Change*, 40 PEPP. L. REV. 461, 470-78 (2012), *available at* http://ssrn.com/abstract=2202823 (discussing the decline in traditional legal service jobs).

31. Ethan Bronner, *Law Schools' Applications Fall as Costs Rise and Jobs Are Cut*, N.Y. TIMES, Jan. 31, 2013, at A1, *available at* http://www.nytimes.com/2013/01/31/education/law-schools-applications-fall-as-costs-rise-and-jobs-are-cut.html; David Gram, *Vt. Law School Cutting Jobs, Preparing for Changes*, BOSTON.COM (Nov. 25, 2012), http://www.boston.com/news/education/2012/11/25/law-school-cutting-jobs-preparing-for-changes/QlBibvMJqGla0P9FAuSEPI/story.html.

The Great Recession has changed client expectations[32] and shifted the balance of power to clients.[33] In the wake of the recession and the competitive market created by the decrease in demand for legal services, clients are now demanding cost control.[34] Accordingly, an increased emphasis on efficiency and productivity is the primary impact of the recent recession on law firms.[35]

This increased emphasis on cost control has already manifested itself in various ways, ways that further jeopardize the traditional business model of legal practice.[36] Responding to the change in client expectations, firms are offering alternatives to the traditional hourly billing model.[37] Clients are no longer willing to accept the traditional billing practices used in the past.[38]

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32. KAPLAN, *supra* note 25, at 6 (reporting that 92 percent of survey participants believe that the recession had changed client expectations).
33. *See* SUSSKIND, *supra* note 11, at 270 ("The legal market looks set to be a buyer's market."); TAMANAHA, *supra* note 11, at 168; Ribstein, *supra* note 13, at 752.
34. KAPLAN, *supra* note 25, at 2 ("[C]lients are . . . forcing their lawyers to consider price reductions and alternative fee agreements on those matters they are pursuing."); Victor Li, *Study: For Law Firms, Cost-Cutting and Alternative Fees Here to Stay*, AM. L. DAILY (June 22, 2010, 6:43 PM), http://amlawdaily.typepad.com/amlawdaily/2010/06/firmscuttingcosts.html; Debra Cassens Weiss, *Citigroup GC Has No Sympathy for Law Firms Seeing Premium Fees*, A.B.A. J. (Sept. 28, 2009, 8:52 AM CDT), http://www.abajournal.com/news/article/citigroup_gc_has_no_sympathy_for_law_firms_seeking_premium_fees/.
35. Li, *supra* note 34.
36. Studies on the legal business model have focused on large firms because of "the central role [they] play[] in shaping practice realities and professional ideologies for its own lawyers and for the entire legal profession." Judith S. Kaye, *Women Lawyers in Big Firms: A Study in Progress Toward Gender Equality*, 57 FORDHAM L. REV. 111, 113 (1988). Kaye notes:

> [W]hat seems to be happening in the big firms is symptomatic of something more pervasive . . . . The big firms cast a giant shadow, in terms of public perceptions of the profession, parallels in other fields, and standards within the legal community. Their every uptick reverberates widely. [Next], the actual influence of the big firms and their alumni—many of them general counsels of major corporations—extends far beyond their numbers.

Id.
37. For example, in light of the recession, clients are pressuring law firms to offer flat fee billing for select services. *See* KAPLAN, *supra* note 25, at 6; Nathan Koppel & Ashby Jones, *'Billable Hour' Under Attack*, WALL ST. J., Aug. 24, 2009, at A1, *available at* http://www.baldersonlaw.com/files/Download/WSJ%20Article%20-%20Billable%20Hour%20Under%20Attack.pdf (reporting that survey of Fortune 1000 companies revealed dramatic increase in money spent on alternative billing arrangements between 2008 and 2009). A survey conducted by LexisNexis revealed that just over forty percent of attorneys in private practice reported that they offer their clients alternative fee arrangements. LEXISNEXIS, *supra* note 13, at 6-7; *see also* Sterling & Reichman, *supra* note 13, at 2291. Moreover, almost sixty percent of the survey participants believed that the billable hour will eventually be replaced by alternative billing strategies. LEXISNEXIS, *supra* note 13, at 6-7. The majority, however, stated that the billable hour will always exist to a certain extent. *Id.* at 13, 15; *see also* SUSSKIND, *supra* note 11, at 270; Sterling & Reichman, *supra* note 13, at 2291.
38. KAPLAN, *supra* note 25, at 9.

Technological advances that both support and fundamentally change the practice of law are also redefining the legal landscape.[39] The "disruptive technologies"[40] that are transforming the legal profession include automated document assembly,[41] relentless connectivity,[42] the electronic legal marketplace,[43] e-learning,[44] online legal guidance,[45] legal open-sourcing,[46] closed legal communities,[47] workflow and project management,[48] and embedded legal knowledge.[49] Radically improving efficiency, technology reduces the amount of time spent on a project, thus reducing cost.[50]

Alternatives to the high cost of legal representation also exist. One alternative on the rise is the use of in-house counsel.[51] This increase in the use of in-house counsel provides fewer opportunities for law firms. Clients are also seeking assistance from non-lawyer law consultants[52] or accounting and economic consulting firms.[53] Other available alternatives are online legal services.[54]

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39. *See* SUSSKIND, *supra* note 11, at 95, 100; *cf.* DANIEL H. PINK, A WHOLE NEW MIND: WHY RIGHT-BRAINERS WILL RULE THE FUTURE 45-46 (2006) (discussing the impact of automation on the legal profession); Henderson, *supra* note 30, at 479 ("[T]echnology . . . is reducing the need for expensive, artisan-trained lawyers . . . . [B]y removing the lawyer from the value chain, the cost goes down, quality goes up, and service delivery time becomes faster.").
40. *See* SUSSKIND, *supra* note 11, at 94. *See generally* CLAYTON CHRISTENSEN, THE INNOVATOR'S DILEMMA (1997). Disruptive technologies are "new, innovative technologies that periodically emerge and fundamentally transform companies, industries, and markets." SUSSKIND, *supra* note 11, at 94.
41. SUSSKIND, *supra* note 11, at 100-05.
42. *Id*. at 105-08.
43. *Id*. at 108-14.
44. *Id*. at 114-21.
45. *Id*. at 121-25.
46. *Id*. at 125-30.
47. *Id*. at 130-36.
48. *Id*. at 136-41.
49. *Id*. at 141-45.
50. *See id.* at 95 (noting that while disruptive technologies "will not work as well as human lawyers, . . . they will be less costly"). Computerized legal research, fast Internet connections, and declining costs of data storage and retrieval improve the efficiency of lawyers. Ribstein, *supra* note 13, at 761; *see also* KAPLAN, *supra* note 25, at 8 ("E-Discovery tools have eliminated the need to have junior associates review boxes of documents, which is why you are seeing thousands of junior associates laid off. . . . [C]lients are no longer willing to pay for junior associates to review documents that technology can evaluate with equal success.").
51. *See* Ribstein, *supra* note 13, at 760-61; Sterling & Reichman, *supra* note 37, at 2291.
52. Ribstein, *supra* note 13, at 768; Tanina Rostain, *The Emergence of "Law Consultants,"* 75 FORDHAM L. REV. 1397, 1398 (2006).
53. Ribstein, *supra* note 13, at 768; Larry E. Ribstein, *Lawyers as Lawmakers: A Theory of Lawyer Licensing*, 69 MO. L. REV. 299, 324 (2004) (discussing the shifting boundaries of unauthorized practice, particularly as a result of technological innovations).
54. PINK, *supra* note 39, at 45-46 ("Dozens of inexpensive information and advice services are reshaping law practice."); SUSSKIND, *supra* note 11, at xxvii (setting forth http://prismlegal.com as an example of online legal resources); Ribstein, *supra* note 13, at 768; Ribstein, *supra* note 53, at 324 (examining the changing limits of unauthorized practice, primarily due to technological

In addition, global competition is impacting the practice of law.[55] For instance, clients are hiring less expensive, but equally accomplished, attorneys in other countries to perform legal work.[56] Similarly, legal services are being outsourced to India and other places where labor costs are lower.[57]

The economy has always influenced the legal profession.[58] But unlike the past, changes wrought to the legal landscape by the Great Recession are long-term structural changes that are here to stay.[59] To survive in this new and unfamiliar legal landscape, the legal industry must reevaluate the traditional business model created generations ago and consider new ways to serve its clients.[60]

Although the current situation is a point of substantial distress, it is also a moment of great opportunity.[61] To capitalize on this opportunity, lawyers need to be creative in adapting to the changing realities of legal

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advances). Basic legal forms and other documents are available online for little money. PINK, *supra* note 50, at 46.

55. *See* PINK, *supra* note 39, at 36-40; Henderson, *supra* note 30, at 487.

56. Ribstein, *supra* note 13, at 765-67.

57. KAPLAN, *supra* note 25, at 9 ("You will see a lot more firms and companies using outsourcing companies to do work more efficiently."); PINK, *supra* note 39, at 38 ("[T]hroughout India, you'll find . . . lawyers who do legal research for American lawsuits."); SUSSKIND, *supra* note 11, at 270; Ribstein, *supra* note 13, at 767.

58. KAPLAN, *supra* note 25, at 6 (reporting that seventy percent of attorneys surveyed agreed that the economy has always impacted law practice).

59. *See id.* (reporting that seventy-four percent of attorneys surveyed think that the changes to the legal profession precipitated by the Great Recession are permanent); *supra* note 13 and accompanying text (addressing long-term consequences of the Great Recession). *See generally* THOMAS D. MORGAN, THE VANISHING AMERICAN LAWYER (2010) (discussing the decline of the legal profession due to the Great Recession). In fact, the legal profession began declining even before the onset of the recession, further supporting the notion that the changes occurring constitute long-term structural changes. TAMANAHA, *supra* note 11, at 168 (noting that 20,000 legal services jobs were lost in the four years before the Great Recession); William D. Henderson & Rachel M. Zahorski, *Law Job Stagnation May Have Started before the Recession—and It May Be a Sign of Lasting Change*, A.B.A. J., July 2011, at 40, 41, *available at* http://www.abajournal.com/magazine/article/paradigm_shift/. Moreover, when measured by "growth rate as a percentage of growth domestic product, the legal sector has been in decline since the mid-2000s." TAMANAHA, *supra* note 11, at 168; *see also* Matt Leichter, *A Profession in Decline: BEA Legal Sector Data (1977-)*, LAW SCH. TUITION BUBBLE, http://lawschooltuitionbubble.wordpress.com/original-research-updated/a-profession-in-decline/ (last visited Apr. 12, 2013).

60. *See* KAPLAN, *supra* note 25, at 15; Wald, *supra* note 5, at 2060 (offering new types of legal services may require embracing new styles of client interaction, reexamining business designs, and collaborating with non-lawyers); Littman, *supra* note 14, at 20 ("Economic pressures are real and law firms, like any business, need to implement real changes in order to survive."); Weiss, *supra* note 34.

61. *See, e.g.*, Scott L. Cummings & Deborah L. Rhode, *Managing Pro Bono: Doing Well by Doing Better*, 78 FORDHAM L. REV. 2357, 2409 (2010); Jacques Derrida, *Force of Law: The "Mystical Foundation of Authority,"* 11 CARDOZO L. REV. 919, 955 (1990) (examining "anxiety-ridden moment[s] of suspense"); Wald, *supra* note 5, at 2052 (noting that the Great Depression is instructive in considering potential opportunities of situation created by economic downturn).

practice.[62] Creative people are able to recognize and solve problems and identify possibilities and opportunities that others may have overlooked.[63]

The world is becoming increasingly complex. Today, "[a]ll organizations are competing in a world in which the ability to innovate and adapt to change is not a luxury: it is a necessity."[64] Consequently, **"**[t]hose with the imagination . . . to invent smarter ways to do old jobs, energy-saving ways to provide new services, new ways to attract old customers or new ways to combine existing technologies . . . will thrive."[65]

III. CREATIVITY

"*[C]reativity is essential and beneficial to a society that continually needs to innovate to survive and prosper*."[66]

Unlike in the past, where intelligence—"the capacity to learn and to use existing knowledge"—was viewed as the most valuable trait, the unprecedented challenges and frantic pace of change today renders creativity an indispensable trait.[67] In fact, an IBM poll of more than 1500 CEOs reported that creativity—not "rigor, management discipline, integrity, or even vision"—was the top "leadership competency . . . of the future."[68]

This Part begins by providing a general discussion of creativity.[69] An extremely complex phenomenon, it is impossible to describe all of the work that has been conducted.[70] Accordingly, this Part provides a big picture

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62. *See* ROBINSON, *supra* note 1, at xii (positing that "[c]reativity is the greatest gift of human intelligence").
63. ANNA CRAFT, CREATIVITY IN SCHOOLS 6 (2005).
64. ROBINSON, *supra* note 1, at 12. IBM published a study in 2010—*Capitalizing on Complexity*—that reported that global and business sector leaders "agree[d] overwhelmingly that the single most important leadership competency for organizations to deal with . . . [the] growing complexity is creativity." *Id.*
65. Thomas L. Friedman, *The New Untouchables*, N.Y. TIMES, Oct. 21, 2009, at A31, *available at* http://www.nytimes.com/2009/10/21/opinion/21friedman.html.
66. Norman Jackson, *Book Review*, PBWORKS.COM, http://imaginativecurriculumnetwork.pbworks.com/f/Fostering+Creativity.pdf (last visited Apr. 4, 2013) (reviewing ARTHUR CROPLEY & DAVID CROPLEY, FOSTERING CREATIVITY (2009)).
67. JOHN S. DACEY & KATHLEEN H. LENNON, UNDERSTANDING CREATIVITY: THE INTERPLAY OF BIOLOGICAL, PSYCHOLOGICAL, AND SOCIAL FACTORS 3 (1998); *see also* ROBINSON, *supra* note 1, at xiii ("The more complex the world becomes, the more creative we need to be to meet its challenges."); Po Bronson & Ashley Merryman, *The Creativity Crisis*, NEWSWEEK (July 10, 2010 4:00 AM EDT), http://www.thedailybeast.com/newsweek/2010/07/10/the-creativity-crisis.html ("The necessity of human ingenuity is undisputed.").
68. *IBM 2010 Global CEO Study: Creativity Selected as Most Crucial Factor for Future Success*, IBM (May 18, 2010), www-03.ibm.com/press/us/en/pressrelease/31670.wss.
69. *See* discussion *infra* Part III.A.
70. Instinctively, creativity may appear to be a simple phenomenon. On the contrary, there is much debate about what creativity is and the subject is quite complicated. *See infra* note 79 and

summary rather than an exhaustive review. The four facets of creativity are then summarized.[71] The Part ends with a discussion of how creativity can be measured.[72]

A. In General

Creativity is a relatively new field of study. The modern era of creativity research began in 1950 with J.P. Guilford's address to the American Psychological Association.[73] In his presidential address, Guilford argued that creativity was an important topic that psychologists had largely ignored.[74] As such, he encouraged psychologists to "focus attention on a scientific approach to conceptualizing creativity and measuring it psychometrically."[75] This address was the galvanizing force in the field of creativity and rendered it acceptable to study creativity.[76]

Initially, creativity appears to be "inherently unknowable, mysterious, and immeasurable."[77] A relatively new area of study,[78] the definition of creativity is subject to debate.[79] Nevertheless, scholars generally agree that

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accompanying text. The study of creativity has, in fact, been interdisciplinary. Creativity has been studied from numerous perspectives, including behavioral, mystical, psychodynamic, cognitive, psychometric, developmental, historical, organizational, philosophical, economic, educational, evolutionary, personality, and social. MARK A. RUNCO, CREATIVITY: THEORIES AND THEMES x (2007); ALANE JORDAN STARKO, CREATIVITY IN THE CLASSROOM 79 (4th ed. 2009), *available at* http://www.actedu.in/ pdf/creativity.pdf; Aaron Kozbelt, Ronald A. Beghetto & Mark A. Runco, *Theories of Creativity*, *in* THE CAMBRIDGE HANDBOOK OF CREATIVITY 20, 20-41 (James C. Kaufman & Robert J. Sternberg eds., 2010) (discussing various theories of creativity); Robert J. Sternberg & Todd I. Lubart, *The Concept of Creativity: Prospect & Paradigms*, *in* HANDBOOK OF CREATIVITY 3-14 (Robert J. Sternberg ed., 1999).

71. *See* discussion *infra* Part III.B.

72. *See* discussion *infra* Part III.C.

73. ARTHUR J. CROPLEY, CREATIVITY IN EDUCATION AND LEARNING 1 (2001). Very little research was being conducted in the field of creativity prior to Guildford's 1950 address, which was published in *American Psychologist*. *Id.*; JAMES C. KAUFMAN, CREATIVITY 101, at 9 (2009). For an overview of the study of creativity before 1950, see KAUFMAN, *supra*, at 9-11, and R. KEITH SAWYER, EXPLAINING CREATIVITY 39-43 (2006).

74. KAUFMAN, *supra* note 73, at 11. Upon reviewing the index of psychological abstracts spanning the years from 1927 to 1950, Guilford discovered that of the 121,000 articles published, only 186 of them involved issues regarding creativity. J.P. Guilford, *Creativity Research: Past, Present and Future*, *in* FRONTIERS OF CREATIVITY RESEARCH 33, 34-35 (Scott G. Isaksen ed., 1987).

75. THOUGHT 72 (Wikipedians eds., 2011).

76. KAUFMAN, *supra* note 73, at 11.

77. Gregory J. Feist, *The Nature and Nurture of the Creative Personality*, *in* THE CAMBRIDGE HANDBOOK OF CREATIVITY, *supra* note 70, at 113, 114.

78. *See supra* notes 73-76 and accompanying text.

79. TERESA M. AMABILE, CREATIVITY IN CONTEXT 19 (1996) ("The definition . . . of creativity [has] long been a subject of disagreement . . . ."). *See generally* DONALD J. TREFFINGER, CREATIVITY, CREATIVE THINKING, AND CRITICAL THINKING: IN SEARCH OF DEFINITIONS (collecting more than 118 different definitions of creativity).

there are two components to creative thought or behavior.[80] First, creativity refers to something that is novel.[81] An idea or work is novel if it is original or unexpected.[82] Novelty alone, however, is not sufficient because novel ideas can be illogical or absurd.[83] Second, a creative idea or product must also be "appropriate to the task at hand."[84] In other words, a creative idea is useful and relevant.[85]

A common misconception about creativity is that it is the same as intelligence.[86] To date, there is no consensus on the relationship between creativity and intelligence: that is, whether they are different traits that require different measures.[87] Despite the lack of consensus, many

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80. Feist, *supra* note 77, at 114 ("[I]t is false to say that no consensual definition has emerged on how to define it. In fact, creativity researchers have for the last 60 years been nearly unanimous in their definition of the concept."); *see also* KAUFMAN, *supra* note 73, at 19.

81. CROPLEY, *supra* note 73, at 2, 14; KAUFMAN, *supra* note 73, at 19; Feist, *supra* note 77, at 114; Sternberg & Lubart, *supra* note 70, at 3.

82. KAUFMAN, *supra* note 73, at 19; Sternberg & Lubart, *supra* note 70, at 3. Todd Lubart & Jacques-Henri Guignard state:

> This work must be novel in the sense that it goes beyond replication or copy of that which exists. The extent to which the work product is novel can vary from being original only for the person who completed the work (this is the notion of reinventing ideas known already in the larger social context) to being original for a limited social group, to being original for all of humanity. Furthermore, within a given domain, there are different ways that an idea may be novel, or original. For example, it may (a) reiterate a known idea in a new way; (b) move a field forward along its current trajectory, (c) move a field forward in a new direction, or (d) lead to an integration of diverse trends in a field.

Todd Lubart & Jacques-Henri Guignard, *The Generality-Specificity of Creativity: A Multivariate Approach*, *in* CREATIVITY: FROM POTENTIAL TO REALIZATION 43, 44 (Robert J. Sternberg, Elana L. Grigorenko & Jerome L. Singer eds., 2004).

83. *See* SAWYER, *supra* note 73, at 27; Feist, *supra* note 77, at 114. Feist notes:

> It is easy to see why originality per se is not sufficient—there would be no way to distinguish eccentric or schizophrenic thought from creative. To be classified as creative, thought or behavior must also be useful or adaptive. Usefulness, however, is not meant in merely a pragmatic sense, for behavior or thought can be judged as useful on purely intellectual or aesthetic criteria.

Feist, *supra* note 77, at 114.

84. KAUFMAN, *supra* note 73, at 19; SAWYER, *supra* note 73, at 27 (stating that an idea is appropriate if the community recognizes the idea as one that is socially valuable).

85. KAUFMAN, *supra* note 73, at 19.

86. HARVARD BUSINESS PRESS, FOSTERING CREATIVITY: EXPERT SOLUTIONS TO EVERYDAY CHALLENGES 6 (2010).

87. KAUFMAN, *supra* note 73, at 102-08; Kyung Hee Kim, Bonnie Cramond & Joyce VanTassel-Baska, *The Relationship Between Creativity and Intelligence*, *in* THE CAMBRIDGE HANDBOOK OF CREATIVITY, *supra* note 70, at 395, 400-02 ("Research on the relationship between creativity and intelligence has been a topic of interest to researchers for a long time, but there has been no clear consensus among the researchers yet."). Kim, Cramond, and VanTassel-Baska state:

> [Intelligence is] an ability to understand complex ideas, to adapt to the environment, to learn from experience, and to engage in reasoning to overcome obstacles. . . . [It] reflects an individual's capacities, shaped by experience and learning, and is often operationally defined by schools as the cognitive abilities that are measured by an IQ test.

researchers subscribe to the 'threshold theory.'[88] Pursuant to this theory, in order to be creative an individual must meet a certain threshold of intelligence that is approximately an IQ of 120.[89] Intelligence above this threshold, however, does not equate to higher creativity.[90] Accordingly, creativity and intelligence are statistically independent,[91] and a highly creative person may or may not be a highly intelligent person.[92]

Another widespread misconception is that creativity is confined to art and literature.[93] In fact, people and organizations[94] can be creative whenever they are using their intelligence.[95] Creativity can be expressed in a wide range of fields including science, engineering, math, teaching, economics, business, industrial design, architecture, and advertising.[96]

An additional misconception about creativity is that only a rare few people are creative. Consider the number of times you have heard others say—or have said yourself—"I am not creative." In fact, creativity has been categorized via creative magnitude, and everyone has creative potential.[97] Essentially, scientists have divided creativity into big-C and little-c creativity.[98]

Kim, Cramond & VanTassel-Baska, *supra*, at 395. Accordingly, "IQ is a measure of intelligence and is an acceptable proxy for intelligence, although it is not the same as intelligence. One of the differences between intelligence and IQ is that the latter is limited by what is measured, whereas, in a pure form, intelligence is complex and multidimensional." *Id.*

88. SAWYER, *supra* note 73, at 44; Kim, Cramond & VanTassel-Baska, *supra* note 87, at 401.
89. SAWYER, *supra* note 73, at 44; Kim, Cramond & VanTassel-Baska, *supra* note 87, at 401.
90. SAWYER, *supra* note 73, at 44; Kim, Cramond & VanTassel-Baska, *supra* note 87, at 401 ("The threshold theory agrees with the assertion that creativity and intelligence are separate constructs above a minimum level of IQ 120.").
91. SAWYER, *supra* note 73, at 44.
92. CROPLEY, *supra* note 71, at 23; SAWYER, *supra* note 73, at 44.
93. ROBINSON, *supra* note 1, at 4-5 (including advertising, design, and marketing). For additional cultural misconceptions about creativity, *see* SAWYER, *supra* note 73, at 18-21.
94. ROBINSON, *supra* note note 1, at 4 (setting forth Apple, Walmart, and Starbucks as examples of creative companies).
95. *Id.* at 4-5.
96. *Id.* at 3 ("It is often thought that creativity is about special activities, like the arts, or advertising, or design, or marketing. All of these can be creative; but so can anything, including science, mathematics, teaching, working with people, medicine, running a sports team or a restaurant."); Donald J. Treffinger & Scott G. Isaksen, *Creative Problem Solving: The History, Development, and Implications for Gifted Education and Talent Development*, 49 GIFTED CHILD Q. 342, 343 (2005).
97. Kozbelt, Beghetto & Runco, *supra* note 70, at 23.
98. CRAFT, *supra* note 63, at 19; Kozbelt, Beghetto & Runco, *supra* note 70, at 23; Beth A. Hennessey & Teresa M. Amabile, *Creativity*, 61 ANNU. REV. PSYCHOL. 569, 572 (2010). Recently, asserting that little-c is too broad, researchers have divided little-c creativity further into mini-c and pro-c. Kozbelt, Beghetto & Runco, *supra* note 70, at 24. The category "mini-c" creativity refers to "creativity that exists at the personal level." Jeffrey K. Smith & Lisa F. Smith, *Educational Creativity*, *in* THE CAMBRIDGE HANDBOOK OF CREATIVITY, *supra* note 70, at 250, 258; *see also* KAUFMAN, *supra* note 73, at 46 ("In mini-c, ... [a]n idea or product doesn't need to be new and original, necessarily, just new and original to the student at the time."); James C. Kaufman & Ronald A. Beghetto, *Beyond Big and Little: The Four C Model of Creativity*, 13 REV.

Big-C creativity, also referred to as eminent or exceptional creativity, involves unmistakable instances of creative expression.[99] Individuals possess big-C creativity if they generate a socially valuable product[100] "that lasts generations and will be remembered, used, or enjoyed a hundred years from now."[101] Examples of big-C creativity include Emily Dickinson's poetry, John Coltrane's jazz, Sigmund Freud's psychology, Wolfgang Amadeus Mozart's compositions, William Shakespeare's plays, Louis Armstrong's music, Albert Einstein's physics, Alexander Fleming's physiology, Pablo Picasso's painting, T.S. Eliot's verse, Martha Graham's dancing, and Mahatma Gandhi's leadership.[102]

In contrast, little-c creativity focuses on everyday creativity,[103] the ability to solve problems that arise daily and to easily adapt to change.[104] While little-c creativity results in helpful and important contributions, the contributions are not earth shattering.[105] Examples of little-c creativity include adapting a recipe to compensate for missing ingredients, dodging a bad traffic jam by discovering an alternative route, and coming up with a

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GEN. PSYCH. 1, 3 (2009) (defining mini-c creativity as "the novel and personally meaningful interpretation of experiences, actions, and events"). Pro-c refers to "professional level creators . . . who have not yet attained . . . eminent status, but who are still beyond little-c creators . . . in knowledge, motivation, and performance." Kozbelt, Beghetto & Runco, *supra* note 70, at 24; *see* KAUFMAN, *supra* note 73, at 46 (noting that pro-c is a "category for individuals who are professional creators but have not reached highly eminent status").

99. Kozbelt, Beghetto & Runco, *supra* note 70, at 23.

100. CRAFT, *supra* note 63, at 19; DAVID HENRY FELDMAN, MIHALY CSIKSZENTMIHALYI & HOWARD GARDNER, CHANGING THE WORLD: A FRAMEWORK FOR THE STUDY OF CREATIVITY 1 (1994) (defining "high creativity . . . [as] the achievement of something remarkable and new, something which transforms and changes a field of endeavor in a significant way . . . the kinds of things that people do that change the world"); SAWYER, *supra* note 73, at 27; Hennessey & Amabile, *supra* note 98, at 572 (describing big-C creativity as "relatively rare displays of creativity that have a major impact on others").

101. KAUFMAN, *supra* note 73, at 44; Smith & Smith, *supra* note 98, at 258.

102. KAUFMAN, *supra* note 73, at 44; Kozbelt, Beghetto & Runco, *supra* note 70, at 23. *See generally* CROPLEY, *supra* note 73 (discussing seven individuals that achieved creative breakthroughs); ANDREW ROBINSON, SUDDEN GENIUS? THE GRADUAL PATH TO CREATIVE BREAKTHROUGHS (2010) (examining the exceptional creativity of scientists and artists, including Leonardo da Vinci, Christopher Wren, Wolfgang Amadeus Mozart, Jean-Francois Champollion, Charles Darwin, Marie Curie, Virginia Woolf, Henri Cartier-Bresson, and Satyajit Ray).

103. Kozbelt, Beghetto & Runco, *supra* note 70, at 23.

104. Hennessey & Amabile, *supra* note 98, at 572; *see also* CRAFT, *supra* note 63, at 19 ("[L]ittle c creativity has been suggested to be the ordinary but lifewide attitude toward life that is driven by 'possibility thinking' but is about acting effectively with flexibility, intelligence and novelty in the everyday rather than the extraordinary."); SAWYER, *supra* note 73, at 46 (asserting that little-c creativity is something that all individuals have in everyday life); NAT'L ADVISORY COMM. CREATIVE & CULTURAL EDUC., ALL OUR FUTURES: CREATIVITY, CULTURE AND EDUCATION 27 (1999) ("All people are capable of creative achievement in some area of activity, provided that the conditions are right and they have acquired the relevant knowledge and skills.").

105. Smith & Smith, *supra* note 98, at 258.

way to ask a friend for forgiveness for unintentionally insulting him or her.[106]

Unlike big-C creativity, little-c creativity recognizes that everyone has the potential to be creative.[107] This creativity is important on numerous levels.[108] As discussed above, creativity is pertinent at the individual level for problem solving both at work and in everyday life.[109] On a larger, societal level, creativity is relevant because it "can lead to new scientific findings, new movements in art, new inventions, and new social programs."[110] Creativity is also important for economic reasons.[111] The creation of novel goods or services generates employment opportunities.[112]

This Article focuses on little-c or everyday creativity.[113] While everyone has creative potential, the challenge lies in developing and fostering these creative capacities.[114]

B. The Four Ps of Creativity

As mentioned above, creativity is a complex subject.[115] In an effort to provide a practical framework for examining creativity, the numerous theoretical approaches[116] to this complex subject have been divided

106. SAWYER, *supra* note 73, at 27; *see also* KAUFMAN, *supra* note 73, at 45 ("Little-c could be making up parody song lyrics to amuse someone, figuring out what might be substituted into a recipe if you don't have any eggs or milk, or doodling pictures of the people who are serving on jury duty with you."); SAWYER, *supra* note 73, at 27 ("A person's dreams or a child's block tower could be creative under the [little-c] definition, but not under the [big-C] definition."); Kozbelt, Beghetto & Runco, *supra* note 70, at 23 (setting forth modifying a recipe as an example of little-c creativity).

107. DACEY & LENNON, *supra* note 67, at 225 ("All people are born with the ability to be creative at some level."); KAUFMAN, *supra* note 73, at 44-45 (noting that "[l]ittle-c creativity is the way that everybody can be creative" and "underscore[s] the important and often essential role that creativity plays in everyday life"); ROBINSON, *supra* note 1, at 4 ("Everyone has huge creative capacities as a natural result of being a human being."); Mark A. Runco, *Everyone Has Creative Potential*, *in* CREATIVITY: FROM POTENTIAL TO REALIZATION, *supra* note 82, at 21, 21-30; Treffinger & Isaksen, *supra* note 96, at 343 ("Creativity can be expressed among all people in an extremely broad array of areas or subjects, perhaps a nearly infinite number of ways."). The multiple cognitive processes involved in being creative are accessible to everyone. Sam McNerney, *Jonah Lehrer and the New Science of Creativity*, SCI. AM. BLOG (Mar. 19, 2012), http://blogs.scientificamerican.com/guest-blog/2012/03/19/jonah-lehrer-and-the-new-science-of-creativity/.

108. Sternberg & Lubart, *supra* note 70, at 3.

109. *Id.*

110. *Id.*

111. *Id.*

112. *Id.* To stay competitive, "individuals, organizations, and societies must adapt existing resources to changing task demands." *Id.*

113. *See supra* notes 103-07 and accompanying text.

114. ROBINSON, *supra* note 1, at 3 ("Creativity is latent in all of us and it just needs to be brought out.").

115. *See supra* note 70 and accompanying text.

116. *See generally* Kozbelt, Beghetto & Runco, *supra* note 70 (discussing theories of creativity).

pursuant to the facet of creativity they stress.[117] The four facets are referred to as the Four Ps: Person, Process, Press, and Product.[118]

Person refers to recognizing the qualities that creative people possess.[119] Process deals with delineating the cognitive operations involved in, or stages of, the creative thinking process.[120] In contrast, Press refers to "examining the nature of situations and its context within the creative press (or environment)."[121] Finally, Product involves identifying the characteristics of a creative product.[122]

Although discussed individually, creative behavior nearly always arises from a combination of two or more of these facets.[123] Nevertheless, each facet will be discussed separately for the sake of clarity.

1. Person

The Person or personality[124] perspective looks at creativity as characteristics of the individual.[125] Early researchers in the creativity field examined and compared highly creative people to ascertain traits that were

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117. *Id.* at 24

118. KAUFMAN, *supra* note 73, at 21; Kozbelt, Beghetto & Runco, *supra* note 70, at 24; *see also* AMABILE, *supra* note 79, at 4-5 (providing general discussion of facets of creativity). Ross L. Mooney introduced the Four Ps of creativity at the Utah Conferences on the Identification of Creative Scientific Talent. Ruth Richards, *Four Ps of Creativity*, *in* 1 ENCYCLOPEDIA OF CREATIVITY 733, 733 (Steven R. Pritzker & Mark A. Runco eds., 1999). Mooney's Four Ps have been widely adopted by creativity researchers. *Id.* Additional facets—or Ps—have been introduced. Kozbelt, Beghetto & Runco, *supra* note 70, at 24. These facets include Persuasion and Potential. *Id.* at 25.

119. Michael Lee Scritchfield, *The Creative Person, Product, Process and Press: The 4P's*, INT'L CTR. FOR STUD. IN CREATIVITY (1999), http://www.buffalostate.edu/orgs/cbir/readingroom/html/Scritchfield-99.html.

120. *Id.*

121. *Id.*

122. *Id.* Creative products result from creative processes by creative people operating in an environment that encourages creativity. Donald W. MacKinnon, *Some Critical Issues for Future Research in Creativity*, *in* FRONTIERS OF CREATIVITY RESEARCH, *supra* note 74, at 120, 120, *available at* http://www.cpsb.com/research/articles/creativity-research/Issues-Further-Research-MacKinnon.pdf

123. CROPLEY, *supra* note 73, at 2 ("Actual creative behavior results from interactions among abilities and knowledge, personal properties, motivation and the *properties of the surrounding environment*."); Scritchfield, *supra* note 119.

124. In psychology, the term "personality" refers "to the unique and relatively enduring set of behaviors, feelings, thoughts, and motives that characterize an individual." Feist, *supra* note 77, at 114.

125. *See* Kozbelt, Beghetto & Runco, *supra* note 70, at 25; Eric L. Santanen, Robert O. Briggs & Gert-Jan deVreede, *Toward an Understanding of Creative Solution Generation*, *in* PROCEEDINGS OF THE 35TH HAWAII INTERNATIONAL CONFERENCE ON SYSTEM SCIENCES 2899, 2899-900 (2002), *available at* http://www.hicss.hawaii.edu/HICSS_35/HICSSpapers/PDFdocuments/OSCIS04.pdf.

indicative or contraindicative of creative potential.[126] While "[t]here is no one creative personality,"[127] researchers have determined that it is very likely that creative individuals demonstrate particular traits and propensities.[128]

Tolerance of ambiguity—"[t]he ability to remain open-minded in the face of ambiguity"[129]—is one of the key traits associated with a creative personality.[130] A situation is ambiguous when there is no framework to assist a person in making decisions or taking action.[131] The tendency to embrace strange or unknown situations, rather than be frightened by them, enables an individual to respond creatively.[132]

Another key characteristic of a creative personality is stimulus freedom.[133] Unlike a stimulus-bound person who faithfully obeys the rules, people with stimulus freedom will bend the rules if the stated rules hinder their creative ideas.[134] Moreover, when a situation is ambiguous, people with stimulus freedom do not assume that rules exist.[135] In contrast, when confronted with an ambiguous situation, stimulus-bound individuals assume that there are rules because of the fear of being incorrect.[136] This fear of being wrong inhibits creativity.[137]

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126. *See* Kozbelt, Beghetto & Runco, *supra* note 70, at 25 ("Much early research compared mathematicians, architects, writers, and other groups in terms of the traits that may be indicative or contraindicative of creative potential.").

127. RUNCO, *supra* note 70, at 315.

128. Gregory J. Feist, *A Meta-Analysis of Personality in Scientific and Artistic Creativity*, 2 PERSONALITY & SOC. PSYCHOL. REV. 290, 304 (1998). Feist notes:

> Empirical research over the past 45 years makes a rather convincing case that creative people behave consistently over time and situation and in ways that distinguish them from others. It is safe to say that in general a 'creative personality' does exist and personality dispositions do regularly and predictably relate to creative achievement.

Id.

The existence of these creative traits, however, does not guarantee that an individual will be creative. RUNCO, *supra* note 70, at 281. Rather, these traits are just "one influence on creative behavior, rather than a complete explanation." Kozbelt, Beghetto & Runco, *supra* note 70, at 25. Some of the traits identified by researchers are more pervasive among people in artistic domains or in scientific domains. *Id*. Conversely, there are some traits that are not domain specific. *Id*.

129. DACEY & LENNON, *supra* note 67, at 99.

130. *Id.* at 98; *see also* Runco, *supra* note 70, at 297-98 (discussing tolerance of ambiguity).

131. DACEY & LENNON, *supra* note 67, at 99. The lack of framework means that "[r]elevant facts are missing, the rules are unclear, and the right procedures are unavailable." *Id.* An example of an ambiguous situation would be a high school reunion for a forty-three-year-old. *Id.*

132. *Id.* If an individual is tolerant of ambiguity, he or she has an easier time dealing with imprecise problems that have creative potential. RUNCO, *supra* note 70, at 297.

133. DACEY & LENNON, *supra* note 67, at 99. For a description of Torrances 9 Dot Problem used to test this trait, see *id.* at 99-101.

134. *Id.* at 101.

135. *Id.*

136. *Id*.

137. *Id.* ("Breaking free from assumptions about a specific situation is only half the challenge. Sometimes it is also necessary to disengage from the mindset of one's surroundings.").

Functional freedom[138] and flexibility[139] are two additional characteristics of a creative personality. Functional freedom refers to the ability to envision using an object for something other than its typical purpose.[140] Similarly, flexibility refers to an individual's ability to see the entire picture, rather than just the details involved in the situation.[141] The ability to imagine using something for other than its intended purpose and to recognize all aspects of a problem renders it more likely that an individual will arrive at a creative solution.[142]

People with creative personalities also tend to be risk takers[143] and have a preference for disorder. To be creative, people have to be willing to take risks and to share creative ideas that are by their very nature original, untested, and frequently unconventional.[144] Moreover, creative individuals, while not disliking order, prefer disorder because it is more interesting.[145]

Researchers have also determined that creative people exhibit a freedom from sex-role stereotypes, possessing qualities of both males and females.[146] Unlike conventional people who generally adhere to conventional sex roles, creative people do not base decisions on stereotypes because they are flexible, open to experience, and do not appreciate conventional behaviors.[147] Valuing authenticity and creativity more than fitting in, creative people have a wider range of perspectives leading to more creative behavior.[148]

Finally, contrary to popular belief, "creativity can't be explained in terms of raw, innate talent or clever imagination."[149] As famously stated by

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138. *Id.* at 102.
139. *Id.* at 104.
140. *Id.* at 102. For a description of the two string test to assess this trait, see *id.* at 102-03. Interestingly, researchers have found that this trait is "inversely related to years of formal education." *Id.* at 103 (noting that "the more education a person has, the more rigid his or her perception of function is likely to become"). In fact, advanced education "works against producing simple ideas, which comprise many of the world's greatest solutions." *Id.*
141. *Id.* at 104. A person is flexible if they are "open to the world, open to change, and prepared to bring about such change." *Id.* For a discussion of a test used to assess the existence of this trait, see *id.*
142. *Id.*
143. *See* RUNCO, *supra* note 70, at 314 (discussing risk taking).
144. *Id.* For an explanation of a simple illustration of this trait—the child's game of ring toss—see DACEY & LENNON, *supra* note 67, at 105. Individuals who are risk averse are less likely "to consider, explore, or share original ideas." *Id.*
145. DACEY & LENNON, *supra* note 67, at 106 (noting that creative people "prefer the richness of the disordered to the stark bareness of the simple").
146. *Id.* at 107-11 (discussing freedom from sex role stereotypes). Specifically, "[c]reative males need to have that stereotypically female characteristic—sensitivity to the feelings of others—in order to get in touch with their own creative urges." *Id.* at 109. In contrast, "females need assertiveness, a stereotypically male attribute, in order to champion their ideas courageously in a critical world." *Id.*
147. RUNCO, *supra* note 70, at 314.
148. *Id.*
149. SAWYER, *supra* note 73, at 54.

Thomas Edison, "Genius is one percent inspiration and ninety-nine percent perspiration."[150] The final three traits of a creative person are perseverance,[151] the ability to delay gratification, and courage. An important trait of a creative individual is the ability to persevere through overwhelming obstacles and counter the conventional approaches of looking at something.[152] Similarly, the ability to delay gratification—"[t]he willingness to endure the stress of prolonged effort so as to reap higher pleasures in the long run"—is essential to being creative.[153] Finally, if an individual comes up with a novel idea, he or she must possess "the courage to be a minority of one, at least in the early stages."[154]

2. Process

Unlike the Person perspective of the Four Ps that focuses on identifying the traits of creative people, the Process perspective focuses on how creativity occurs.[155] Specifically, this perspective approaches creativity as a method of thinking,[156] examining "the sequence of thoughts and actions that leads to a novel, adaptive production."[157] While there are numerous approaches to the creative process,[158] Process theories generally focus on examining the stages or operations that occur when people act creatively.[159]

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150. *Id.* at 53.
151. *Id.* ("[C]reativity is largely the result of hard work.").
152. DACEY & LENNON, *supra* note 67, at 111; *see also* RUNCO, *supra* note 70, at 295 (discussing perseverance and persistence).
153. DACEY & LENNON, *supra* note 67, at 107. Creators frequently work for years on a problem. *Id.* The ability to delay gratification "is what makes some creative people spend years on a project without recognition or reward." *Id.* For example, Thomas Edison conducted over 2000 experiments before he discovered the light bulb. *Id.*
154. *Id.* at 112. Every time the creator reveals his or her creative product is an act of courage in that "the creator must overcome the fear that the brainchild may be ridiculed or rejected." *Id.* at 114. Additional creative personality traits have also been identified. *See id.* at 98, 114-15; SAWYER, *supra* note 73, at 47.
155. Santanen, Briggs & deVreede, *supra* note 125, at 2900; Scritchfield, *supra* note 119. The Process perspective examines the thinking stages or operations that happen when people behave in a creative manner. Scritchfield, *supra* note 119. Researchers studying the creative process tend to focus on examining whether the cognitive mechanisms of creative thinking are the same as those used in non-creative thinking, whether the creative process involves conscious or unconscious cognitive operations, whether creative thinking involves stochastic processes versus a more directed process, and whether the evaluative processes utilized in the creative process are reliable. Kozbelt, Beghetto & Runco, *supra* note 70, at 24.
156. Santanen, Briggs & deVreede, *supra* note 125, at 2900.
157. Todd I. Lubart, *Models of the Creative Process: Past, Present and Future*, 13 CREATIVITY RES. J. 295, 295 (2001).
158. *Id.* at 297 (discussing other approaches to the creative process).
159. Kozbelt, Beghetto & Runco, *supra* note 70, at 24. Various other models of the creative process also exist, including Teresa Amabile's componential theory of the creative process, *see generally* Teresa M. Amabile, *The Social Psychology of Creativity: A Componential Conceptualization*, 45

a. Stage Models

In an effort to understand the cognitive processes that produce creative thinking, researchers have developed cognitive stage models of the creative process.[160] While there are numerous theories regarding the stages of the creative process, psychologists generally agree that the creative process consists of four stages across domains.[161] These four stages are (1) Preparation,[162] (2) Incubation,[163] (3) Illumination,[164] and (4) Verification.[165]

The initial stage of the creative process is Preparation.[166] During this stage, the creator identifies and defines a problem and assembles information.[167] The creator must apprise himself or herself with prior works in order to embrace the symbols and standards of the domain.[168]

J. PERSONALITY & SOC. PSYCHOL. 357 (1983), Robert Sternberg and Todd Lubart's investment model, *see generally* Todd. I. Lubart & Robert J. Sternberg, *An Investment Approach to Creativty: Theory & Data*, *in* THE CREATIVE COGNITION APPROACH 271 (Steven M. Smith, Thomas B. Ward & Ronald A. Finke eds., 1995), Csikszentminhalyi's systems model, *see generally* Mihaly Csikszentmihalyi, *Implications of a Systems Perspective for the Study of Creativity*, *in* HANDBOOK OF CREATIVITY, *supra* note 76, at 313, and the geneplore model, Thomas B. Ward & Yuliya Kolomyts, *Cognition & Creativity*, *in* THE CAMBRIDGE HANDBOOK OF CREATIVITY, *supra* note 70, at 93, 94-95. *See* RUNCO, *supra* note 70, at 30; Kozbelt, Beghetto & Runco, *supra* note 70, at 31.

160. Santanen, Briggs & deVreede, *supra* note 125, at 2901. For a discussion of some problems with stage theories, see SAWYER, *supra* note 73, at 70, and Lubart, *supra* note 157, at 297.

161. CROPLEY, *supra* note 73, at 71-72; SAWYER, *supra* note 73, at 58; Colin Martindale, *Creativity and Connectionism*, *in* THE CREATIVE COGNITION APPROACH, *supra* note 159, at 249, 251. The stage model for the creative process was originally developed by Graham Wallas. *See generally* GRAHAM WALLAS, THE ART OF THOUGHT (1926). Wallas originally identified five stages. KAUFMAN, *supra* note 73, at 38. Subsequently, two of the stages—intimation, when you "realize you are about to have a breakthrough," and illumination, "when you have the insight"—were merged into one. *Id*.; Lubart, *supra* note 157, at 297 (discussing the evolution of the four stage model). For a discussion of various stage models, see R. KEITH SAWYER, EXPLAINING CREATIVITY: THE SCIENCE OF HUMAN INNOVATION 88-89 (2d ed. 2012).
Researchers debate whether creativity is domain general or domain specific. *See generally John Baer, Is Creativity Domain Specific?*, *in* THE CAMBRIDGE HANDBOOK OF CREATIVITY, *supra* note 70, at 321.

162. *See infra* notes 167-69 and accompanying text.

163. *See infra* notes 170-75 and accompanying text.

164. *See infra* notes 176-81 and accompanying text.

165. *See infra* notes 182-85 and accompanying text.

166. SAWYER, *supra* note 73, at 58 ("Preparation is the initial phase of preliminary work.").

167. *Id.* (noting that the preparation stage entails "collecting data and information, searching for related ideas, [and] listening to suggestions"); Kozbelt, Beghetto & Runco, *supra* note 70, at 30; Martindale, *supra* note 161, at 251 ("Ideas presumed relevant to the problem are learned and manipulated in an intellectual fashion."); Scritchfield, *supra* note 119 (stating that the preparation stage involves scrutinizing the challenge from all directions).

168. SAWYER, *supra* note 73, at 59. In order to be creative, an individual must internalize the domain. *Id.* Creativity occurs "when the individual somehow combines . . . existing elements [from the domain] and generates some new combination." *Id.*

After a period of intense work with no advancement achieved, the creator sets the problem aside for the next stage.[169]

Researchers understand the least about the second stage, Incubation.[170] During this stage, the individual takes a break from working on the problem.[171] While taking some time away from the problem, the creator is unconsciously thinking about it.[172] In essence, during this stage, the individual internally expands and arranges the prepared material.[173] Existing ideas are blended and combined to shape complicated mental configurations.[174] Once the mental elements come together, the next stage, Insight, ensues when some of these mental structures surface into consciousness.[175]

This third stage, Illumination or Insight,[176] is the "aha" or "eureka" moment[177] when the creator suddenly realizes the solution to a problem.[178] This new mental structure that surfaces into consciousness is comprised of ideas and conventions that already exist in the domain.[179] A creative insight is rarely one hundred percent unique.[180] Rather, the insight is novel in terms of how the creator has combined existing ideas.[181]

The fourth stage is Verification. This final stage has been divided into two substages, evaluation and elaboration.[182] Not all creative insights are good ideas.[183] Once the creator has had the "aha" moment when the idea surfaces into consciousness, the creator must evaluate whether the insight is a good idea.[184] Unlike the Illumination/Insight stage, this stage is done

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169. Martindale, *supra* note 161, at 251.
170. SAWYER, *supra* note 73, at 61-62. *See generally* Steven M. Smith & Rebecca A. Dodds, *Incubation*, *in* 2 ENCYCLOPEDIA OF CREATIVITY, *supra* note 118, at 39.
171. SAWYER, *supra* note 73, at 62 ("Many creative people say that they get their best insights during a period of idle time, when they take time off from their hard, focused work to engage in an unrelated activity—gardening, walking—or to work on another problem for a while.").
172. *Id.* at 61-62; Scritchfield, *supra* note 119.
173. SAWYER, *supra* note 73, at 58; *id.* at 61 ("[I]deas and thoughts combine rapidly in an almost undirected way."); *see also* discussion *infra* Part III.B.2.b.
174. SAWYER, *supra* note 73, at 67; *see also* discussion *infra* Part III.B.2.b.iii.
175. SAWYER, *supra* note 73, at 61-62, 67.
176. *See generally* Robert J. Sternberg & Janet E. Davidson, *Insight*, *in* 2 ENCYCLOPEDIA OF CREATIVITY, *supra* note 118, at 57.
177. SAWYER, *supra* note 73, at 59.
178. Kozbelt, Beghetto & Runco, *supra* note 70, at 31.
179. SAWYER, *supra* note 73, at 67; *see also* RUNCO, *supra* note 70, at 22 (listing five situations in which insight may happen).
180. SAWYER, *supra* note 73, at 67.
181. *Id.*
182. *Id.* at 59. In this stage "the individual tests the idea or applies the solution." Kozbelt, Beghetto & Runco, *supra* note 70, at 31; *see also* Scritchfield, *supra* note 119 (noting that this stage involves "a validity check on the idea and refining it to a more precise form").
183. SAWYER, *supra* note 73, at 68.
184. *Id.* at 59, 68.

consciously—"the creator draws on his or her immense knowledge about the domain."[185]

During the second substage, elaboration, the creator consciously fashions the insight into a finished product.[186] To mold the raw insight into its finished form, the creator draws on his or her domain knowledge.[187] Elaboration and evaluation go hand-in-hand because it is difficult for the creator to assess the insight without elaborating on it to some extent.[188]

Although initially presented as a linear process, recent theories have acknowledged the recursive nature of the creative process. During the creative process, individuals could proceed through each of the steps numerous times and in different orders.[189]

b. Cognitive Operations

"*The creative act is not an act of creation in the sense of the Old Testament. It does not create something out of nothing; it uncovers, selects, re-shuffles, combines, synthesizes already existing facts, ideas, faculties, skills. The more familiar the parts, the more striking the new whole*."[190]

Numerous cognitive operations underlie the creative process.[191] These cognitive abilities are not special.[192] Rather, creative thinking involves particular combinations of everyday cognitive operations.[193] The mental

185. *Id.* at 68. The creator asks him or herself:

> Is the insight an idea that someone already had in the past? Is the insight kind of interesting, but trivial? How can this insight be integrated with the creator's existing body of work? Or does it require a complete rethinking of a career, perhaps something the creator isn't prepared to do at this time? How can this insight best be connected to other work that is going on in the domain?

Id.

186. *Id.* at 70 (discussing elaboration).
187. *Id.* at 69.
188. *Id.* at 70.
189. RUNCO, *supra* note 70, at 19; Kozbelt, Beghetto & Runco, *supra* note 70, at 31.
190. ARTHUR KOESTLER, THE ACT OF CREATION 119-20 (1964).
191. *See* Hennessey & Amabile, *supra* note 98, at 575; Lubart, *supra* note 157, at 295; Ward & Kolomyts, *supra* note 159, at 93 ("Creative cognition is concerned with explicating how fundamental cognitive processes, available to virtually all human beings, operate on stored knowledge to yield ideas that are novel and appropriate to the task at hand."); Ward & Kolomyts, *supra* note 159, at 95 ("Creative thinking . . . [is] characterized in terms of how various specific processes are employed or combined.").
192. SAWYER, *supra* note 73, at 74; *see also* Ward & Kolomyts, *supra* note 159, at 96-97.
193. SAWYER, *supra* note 161, at 107 ("[C]reativity involves standard cognitive processes and structures."); STEVEN M. SMITH ET AL., EMPIRICAL STUDIES OF CREATIVE COGNITION IN IDEA GENERATION 8 (2003), *available at* http://www.tamu.edu/faculty/stevesmith/SmithCreativity/Smith_Gerkens_Shah_Vargas-Hernandez.pdf ("No one cognitive process can be identified as *the* creative process. Rather, creative thinking includes particular combinations of the same cognitive processes involved in noncreative activities."); Steven M. Smith, Thomas B. Ward & Ronald A. Finke, *Cognitive Processes in Creative Contexts*, *in* THE CREATIVE COGNITION APPROACH, *supra*

strategies, processes, or habits most germane to the production of creative ideas include generating multiple solutions, defining problems, and synthesizing or combining information.[194]

i. Generating Multiple Solutions

Guilford identified two modes of thinking[195]—divergent and convergent—involved in the creative process.[196] The cognitive foundation of creativity,[197] divergent thinking involves mental processes that allow a person to generate numerous responses to open-ended questions or problems.[198] The ability to generate multiple responses based on the information provided favors the formation of new and original ideas.[199] Accordingly, divergent thinking is critical to creativity and creative problem solving.

Researchers have identified four components of divergent thinking.[200] The first component is fluency, the capacity to produce many ideas.[201] The second component, flexibility, refers to the ability to generate various kinds of ideas.[202] Originality is the third component and refers to the ability to

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note 159, at 1, 1 ("[C]reative thinking encompasses special combinations and patterns of the same cognitive processes seen in other noncreative endeavors."); Ward & Kolomyts, *supra* note 159, at 96.

194. Researchers have studied the combination of various other subprocesses involved in creative thinking. Lubart, *supra* note 157, at 299; *see also* SMITH ET AL., *supra* note 193, at 10-16 (discussing phenomena that take place when individuals engage in creative thinking).

195. These modes are two of the many that Guildford identified in the Structure-of-Intellect (SOI) model of creative thinking. RUNCO, *supra* note 70, at 9; Mark A. Runco, *Divergent Thinking*, *in* 1 ENCYCLOPEDIA OF CREATIVITY, *supra* note 118, at 577, 577.

196. Kozbelt, Beghetto & Runco, *supra* note 70, at 32; *see also* JAMES C. KAUFMAN, JONATHAN A. PLUCKER & JOHN BAER, ESSENTIALS OF CREATIVITY ASSESSMENT 16 (2008) (explaining that divergent and convergent thinking "lie on a continuum of cognitive processes").

197. CROPLEY, *supra* note 73, at 32.

198. KAUFMAN, PLUCKER & BAER, *supra* note 196, at 16; *see also* CROPLEY, *supra* note 73, at 32 (divergent thinking entails the "production of variability"); Kozbelt, Beghetto & Runco, *supra* note 70, at 32 ("Divergent thinking . . . involves processes like shifting perspective, transforming, or producing multiple answers from the available information and this favors production of novelty."); Lubart, *supra* note 157, at 299.

199. Kozbelt, Beghetto & Runco, *supra* note 70, at 32 (noting that divergent thinking "occurs when ideas and associations move in varied directions, and as a result new and original ideas may be found"); *see also* Runco, *supra* note 195, at 577 ("Divergent thinking is cognition that leads in various directions. Some of these are conventional, some original. Because some of the resulting ideas are original, divergent thinking represents the potential for creative thinking and problem solving.").

200. KAUFMAN, *supra* note 73, at 14.

201. *Id.*

202. *Id.*

construct ideas that are the most atypical. [203] Finally, the last component is elaboration, or the skill to advance ideas.[204]

In contrast to divergent thinking, convergent thinking emphasizes precision and correctness.[205] Convergent thinking entails the use of cognitive processes to come up with the best, or correct, response to a question or problem.[206] While effective in situations "where a ready-made answer exists or needs simply to be recalled from stored information, or where the answer can be worked out from what is already known by conventional and logical search, recognition and decision-making strategies," it does not lend itself to the production of novelty.[207] The focus on identifying what is already known, using established methods, and maintaining existing knowledge inhibits creativity.[208]

Both divergent and convergent thinking are involved in the creative process.[209] Once the creator has finished the process of divergent thinking, the creator uses convergent thinking to structure and organize the ideas and information.[210] The combination of divergent and convergent thinking allows individuals to generate original and effective ideas.[211]

ii. Problem Finding and Definition

While divergent and convergent modes of thinking focus on problem solving, recent research has unveiled the significance of problem finding.[212]

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203. *Id.*
204. *Id.*
205. RUNCO, *supra* note 70, at 9; Runco, *supra* note 195, at 577.
206. CROPLEY, *supra* note 73, at 32; KAUFMAN, PLUCKER & BAER, *supra* note 196, at 16; Kozbelt, Beghetto & Runco, *supra* note 70, at 32.
207. CROPLEY, *supra* note 73, at 32
208. *Id.*
209. KAUFMAN, PLUCKER & BAER, *supra* note 196, at 16 ("[V]ery few problems (if any) in the real world require only divergent or convergent thinking."); Kozbelt, Beghetto & Runco, *supra* note 70, at 32; Mark Runco, *Divergent Thinking, Creativity, and Ideation*, *in* THE CAMBRIDGE HANDBOOK OF CREATIVITY, *supra* note 70, at 413, 413.
210. *Strategies of Divergent Thinking*, http://faculty.washington.edu/ezent/imdt.htm (last visited Apr. 13, 2013).
211. Mark A. Runco & Robert S. Albert, *Creativity Research: A Historical View*, *in* THE CAMBRIDGE HANDBOOK OF CREATIVITY, *supra* note 70, at 3, 3.
212. RUNCO, *supra* note 70, at 16; SAWYER, *supra* note 73, at 73; Kozbelt, Beghetto & Runco, *supra* note 70, at 34; Lubart, *supra* note 157, at 299. Problem finding refers to problem identification, problem definition, and problem construction—things that happen before an individual solves the problem. STARKO, *supra* note 70, at 12 ("Problem finding, in its broadest sense, underlies all types of creativity."); Mark A. Runco & Gayle Dow, *Problem Finding*, *in* 2 ENCYCLOPEDIA OF CREATIVITY, *supra* note 118, at 433, 433. For an in-depth discussion of problem finding, see STARKO, *supra* note 70, at 29-38, and R. Keith Sawyer, *Creativity, Innovation, and Obviousness*, 12 LEWIS & CLARK L. REV. 461, 473-77 (2008).

Rarely in the real world, except on standardized tests,[213] are problems neatly presented.[214] Rather, real-world creativity requires problem finding.[215]

Researchers have found that the ability to frame a sound problem, and not simply solve the problem, is critical to creativity.[216] The difference between problem solving—"the type of creativity that occurs when a problem is known to everyone working in the area, yet no one is able to determine the solution"—and problem finding can be seen in this definition of the latter: "Problem finding is a type of creativity that occurs when no one . . . has yet realized that there is a problem to be solved; a problem finding creator is one who discovers the problem and first poses the question in such a way that it lends itself to solution."[217]

iii. Synthesizing or Combining Information

Individuals are creative when existing ideas come together.[218] Creative individuals are able to manipulate content during the Incubation stage to examine information in innovative ways. Accordingly, "[t]he existing ideas that form the new mental structures aren't new; they're familiar ideas and conventions that are already in the domain and that have been internalized by the creator."[219] Cognitive psychologists have identified numerous mechanisms behind how individuals combine ideas to be creative.[220]

Conceptual combination,[221] one such mechanism, involves "combin[ing] concepts and us[ing] these combinations to develop new creative concepts."[222] Individuals are creative if they can combine concepts in a way that results in emergent effects that extend beyond the

213. SAWYER, *supra* note 73, at 73. This is a common critique of standardized tests. *Id.*

214. *Id.*

215. *Id.*; Ward & Kolomyts, *supra* note 159, at 106.

216. SAWYER, *supra* note 73, at 73. Researchers believe that the manner in which a person conceives a problem has a large impact on the likelihood that he or she will come up with a creative solution. Sawyer, *supra* note 212, at 473 ("[H]istorically, the most radical breakthroughs result from problem finding creativity."); Ward & Kolomyts, *supra* note 159, at 105.

217. Sawyer, *supra* note 212, at 473-74. Sometimes the solution is developed before a problem has even been identified. *Id.* at 474. For example, the adhesive for the Post-It note was created five years before the Post-It note came into being. *Id.*

218. SAWYER, *supra* note 161, at 114.

219. *Id.* at 114-15.

220. *Id.* at 115-22; *see also* Sawyer, *supra* note 212, at 465 (identifying the four mental processes at the core of creativity as conceptual combination, conceptual transfer, conceptual elaboration, and concept creation). For a discussion of conceptual elaboration, see Sawyer, *supra* note 212, at 469-70. For an explanation of conceptual creation, see *id.* at 470-71.

221. For a discussion of conceptual combination, see Sawyer, *supra* note 212, at 465-68.

222. *Id.* at 465; *see also* Kozbelt, Beghetto & Runco, *supra* note 70, at 32; Ward & Kolomyts, *supra* note 159, at 101. Examples of conceptual combinations are Combo snacks, a combination of cheddar cheese and pretzels, and Reese's peanut butter cups, a combination of peanut butter and chocolate. *See* Sawyer, *supra* note 212, at 465.

characteristics of the individual pieces.[223] A real innovation results from remote associations, the combination of ideas that are quite far away from one another.[224] A camera phone is one example of conceptual combination.[225] The combination of the concept of a camera and a phone "extend[s] the boundaries of traditional ideas, because new creative qualities . . . emerge from [the] combination[] of [these] concepts."[226]

Cross-fertilization is another means by which individuals creatively combine ideas.[227] In essence, individuals are more likely to generate a new and interesting combination during Incubation if they are working on more than one project or working in more than one field at a given time.[228] Creators working on multiple projects and that have multiple domains internalized are more creative because they "have a larger pool of basic ideas" that permit them to generate combinations of which they may not be consciously aware.[229]

Finally, creative ideas can also arise from conceptual transfer.[230] Unlike conceptual combination, which involves bringing two separate concepts together, conceptual transfer involves the transfer of concepts from one domain to another.[231] Analogical[232] and metaphorical[233] thinking are two forms of conceptual transfer instrumental to creativity.[234]

Metaphorical thinking involves uncovering parallels among distinct concepts to solve problems and produce new ideas.[235] In essence, ideas are transferred from one context and used in another context "to create a new synthesis, transformation, or perspective."[236] In contrast to metaphorical thinking, analogical thinking involves transferring knowledge from one domain to construct a new idea in another domain.[237]

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223. SMITH ET AL., *supra* note 193, at 16.
224. Sawyer, *supra* note 212, at 468; *see also* SAWYER, *supra* note 161, at 118. For a discussion of the conceptual combination models, see SAWYER, *supra* note 161, at 116-18.
225. SMITH ET AL., *supra* note 193, at 12-13.
226. *Id*.
227. SAWYER, *supra* note 161, at 115.
228. *Id.*
229. *Id.*
230. *Id.* at 119.
231. Sawyer, *supra* note 212, at 468.
232. With analogical reasoning, "knowledge from a base domain is mapped to a target." SAWYER, *supra* note 161, at 119.
233. Metaphorical thinking "involves conceptual combinations that involve mapping a *vehicle* concept onto a *topic* concept." *Id.*
234. *Id.*
235. STARKO, *supra* note 70, at 88.
236. *Id.*
237. SMITH ET AL., *supra* note 193, at 13-14. Many important scientific advances resulted from analogies. SAWYER, *supra* note 161, at 119 (listing sound/water waves; earth/small magnet; Earth/moon; light/sound; planet/projectile (Newton's apple); lightning/electricity; respiration /combustion; and heat/water as examples of scientific advances originating with analogies).

Velcro is an example of a product that was created via conceptual transfer.[238] Specifically, George de Mestral created Velcro upon strolling through a field of cockleburs which stuck to his pants.[239] Through the use of conceptual transfer de Mestral created a synthetic fabric that mimicked the small hooks on the burs that engaged with loops in the fabric of his pants.[240]

3. Press

The third P stands for Press. Press refers to the environmental elements that "press" upon the individual, either encouraging or impeding creative behavior.[241] Press, in turn, has been divided into physical[242] and psychological[243] press.[244]

a. Physical Press

Quite simply, physical press refers to the physical environment in which an individual lives.[245] Thus, physical press refers to the influences that are around the person, process, or product. These physical or external influences can be developmental,[246] historical,[247] cultural,[248] or social.[249]

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238. STARKO, *supra* note 70, at 88.
239. *Id.*
240. *Id.* The light bulb socket is another example of a product created via conceptual transfer. Sawyer, *supra* note 212, at 468. Thomas Edison's assistant got the idea of a screw-in lamp base when he watched Edison unscrewing the top of the turpentine can in the process of washing his hands. *Id.* For a discussion of conceptual transfer with examples, see *id.* at 468-69.
241. Amabile, *supra* note 79, at 17 ("Whatever an individual's talents, domain expertise, and creative thinking skills, that individual's social environment—the conditions under which he or she works—can significantly increase or decrease the level of creativity produced."); Goran Ekvall, *Creative Climate*, *in* 1 ENCYCLOPEDIA OF CREATIVITY, *supra* note 118, at 403, 405; *Creativity 101: Creative Press (Environment)*, INT'L CTR. FOR STUD. IN CREATIVITY, http://www.buffalostate.edu/creativity/documents/pressscript.pdf [hereinafter *Creativity 101*] ("'Press' refers to our environment; we are each being called to be creative in a specific context, and this context is seen as 'pressing' down on [sic] upon us."). The term "press" originates from the Latin term *pressus*, which refers to "a box or container to put things in—the environment being the place where the other 3Ps live." John Michael Fox, *Mel Rhodes: The Man Behind the Four P's of Creativity*, ICSCREATIVITY (Mar. 15, 2012), http://facultyicsc.blogspot.com/2012/03/mel-rhodes-man-behind-four-ps-of.html.
242. Physical press is also referred to as external or extrinsic press. *Creativity 101*, *supra* note 241.
243. Psychological press is also referred to as internal or intrinsic press. *Id.*
244. Ekvall, *supra* note 241, at 405 (noting that there are social and psychological facets to creative press); *Creativity 101*, *supra* note 241.
245. *Creativity 101*, *supra* note 241 (describing physical press as an individual's physical setting).
246. Ekvall, *supra* note 241, at 406 (discussing the impact of environmental factors during childhood). Developmental influences during childhood include, among other things, adversity, family size, birth order, parental personality traits, and parental creativity. RUNCO, *supra* note 70, at 46-56.
247. RUNCO, *supra* note 70, at 215. Referred to as historiometry, the historical perspective examines areas or eras when creativity flourished. *Id.* at 259. Runco notes:

This Article focuses on the social, or organizational,[250] climate because it applies to the educational and legal practice setting.[251]

Social factors play an integral role in developing a creative environment that enhances creative potential, resulting in creative performance.[252] Researchers have identified nine dimensions necessary to facilitate a creative climate.[253] While addressed to an organizational environment, these dimensions for a creative environment are equally applicable in an educational setting because the social environment of the classroom influences creativity.[254]

> Various historical events and situations seem to influence creativity, among them war, civil unrest, and economic ups and downs. Yet one of the most significant influences on creativity is *Zeitgeist*, the spirit of the times. This is manifested in attitudes, expectations, and assumptions about creative things and creative people. This is what draws people into creative endeavor—or scares some of them away from it.

Id. For a discussion of historical influences on creativity, see *id.* at 213-62.

248. *Id.* at 276; *see also* Todd Lubart, *Cross-Cultural Perspectives on Creativity*, *in* THE CAMBRIDGE HANDBOOK OF CREATIVITY, *supra* note 70, at 265, 276 ("Culture influences both the production of 'creative' work and its reception, recognition, and diffusion."). For a discussion of the impact of culture on creativity, see RUNCO, *supra* note 70, at 263-78 and Lubart, *supra*.

249. Ekvall, *supra* note 241, at 406.

250. *Id.* ("[T]he social climate concept has come to be understood as organizational climate.").

251. RUNCO, *supra* note 70, at 189 ("Many ideas in the industrial and organizational research on creativity supports the conclusion that the environment and setting influences creative thinking and behavior; and in fact, much of it can be adapted to the school setting.").

252. *Id.* at 175. Organizations striving for creativity focus on social influences because they "can support, undermine, or neither support nor undermine . . . creativity." *Id.* at 154.

253. SCOTT G. ISAKSEN, K. BRIAN DORVAL & DONALD J. TREFFINGER, CREATIVE APPROACHES TO PROBLEM SOLVING 187-90 (2011). Goran Ekvall initially identified ten dimensions of a creative climate. Gerard J. Puccio & John F. Cabra, *Organizational Creativity: A Systems Approach*, *in* THE CAMBRIDGE HANDBOOK OF CREATIVITY, *supra* note 70, at 145, 157. Subsequently, Lauer redefined the dimensions in 1994. Scott G. Isaksen et al., *Perceptions of the Best and Worst Climates for Creativity: Preliminary Validation Evidence for the Situational Outlook Questionnaire*, 2 CREATIVITY RES. J. 171, 175 (2001). *See generally* GÖRAN EKVALL, CLIMATE, STRUCTURE AND INNOVATIVENESS OF ORGANIZATIONS (1983); Kenneth J. Lauer, The Assessment of Creative Climate: An Investigation of Ekvall's Creative Climate Questionnaire (Dec. 8, 1994) (unpublished M.A. thesis, State University of New York College at Buffalo), *available at* http://www.buffalostate.edu/orgs/cbir/Readingroom/theses/ Lauerkjt.pdf.

In contrast, Teresa Amabile has specified eight dimensions of a creative organizational climate: organizational encouragement; encouragement by supervisors; freedom within the organization; pressure and work-load; resources; organizational hurdles and impediments, challenging work and assignments, and support for work groups. Teresa M. Amabile et al., *Assessing the Work Environment for Creativity*, 39 ACAD. MGMT. J. 1154, 1158-62 (1996); *see also* RUNCO, *supra* note 70, at 165; *cf.* Teresa M. Amabile, *How to Kill Creativity: Keep Doing What You're Doing. Or, If You Want to Spark Innovation, Rethink How You Motivate, Reward, and Assign Work to People*, HARV. BUS. REV., Sept.-Oct. 1998, at 77, 80 (defining the six general categories of managerial practices that affect creativity as challenge, freedom, resources, work-group features, supervisory encouragement, and organizational support).

254. *See* RUNCO, *supra* note 70, at 189 ("There are clear parallels between the supervisor . . . and a teacher . . . and both should respect an individual's autonomy if creativity is to be encouraged. Both settings involve resources, as well, such as time; and both supervisors and teachers should provide sufficient time if they want their charges to be creative."). There are numerous studies that have confirmed that the Ekvall dimensions are equally applicable to the creative climate in

The first dimension is idea support.[255] In a supportive environment, new ideas are encouraged and responded to in a positive manner.[256] The second dimension, challenge, refers to how involved the members of an organization are with regular operations.[257] In a climate with a high level of challenge the members are intrinsically motivated to contribute to the organization.[258]

The next dimension of a creative climate is idea time.[259] Organizations that provide high idea time allow its members to discuss and elaborate on their ideas.[260] Freedom is the fourth dimension and refers to the degree of independence the organization's members have.[261] Freedom enhances creativity because members are permitted to exercise discretion and have the autonomy to define their work.[262]

The fifth dimension of a creative climate is trust and openness.[263] An environment that promotes emotional safety allows members to feel safe in introducing new ideas without fear of ridicule if they fail.[264] The sixth dimension, dynamism/liveliness, "describes the eventfulness of the life of the organization."[265] A highly dynamic situation fosters a creative environment because new things are occurring all the time.[266]

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the classroom. *See* Cynthia A. Argona, Identifying Ekvall's Creative Climate Dimensions in an Aesthetic Education Setting (Aug. 10, 2001) (unpublished M.S. thesis, Buffalo State College) (on file with the Buffalo State College Library System), *available at* http://www.buffalostate.edu/orgs/cbir/readingroom/theses/Argoncap.pdf. *See generally* Siew-Lang Kong, *Cultivating Critical and Creative Thinking Skills*, *in* CREATIVITY: A HANDBOOK FOR TEACHERS 315 (Ai-Girl Tan ed., 2007) (setting forth "recommendations for establishing an environment conducive to creative thinking").

255. RUNCO, *supra* note 70, at 164.

256. ISAKSEN, DORVAL & TREFFINGER, *supra* note 253, at 189; Lauer, *supra* note 253, at 182. In environments where idea support is lacking, suggestions are instantly countered—"[f]ault-finding and obstacle-raising are the usual styles for responding to ideas." ISAKSEN, DORVAL & TREFFINGER, *supra* note 253, at 189; *see also* Lauer, *supra* note 253, at 182.

257. Lauer, *supra* note 253, at 162; *see also* RUNCO, *supra* note 70, at 164 (noting that organizational climate must "[c]hallenge[] individuals with tasks, goals, and institutional operations").

258. Lauer, *supra* note 253, at 162. In contrast, "[l]ow challenge indicates alienation and indifference; a common sentiment and attitude is apathy and lack of interest for the job and the organization." *Id.*

259. *Id.* at 241.

260. *Id*. Organizations that provide high idea time encourage the discussion and testing of new ideas even though this idea time is unplanned and not part of the original task assigned. *Id.* In contrast, in organizations that do not support idea time, "every minute is booked and specified." *Id.* This time pressure renders "it impossible to think outside the instructions and planned routines." *Id.*

261. ISAKSEN, DORVAL & TREFFINGER, *supra* note 253, at 188-89.

262. *Id*.

263. *Id*. at 189; RUNCO, *supra* note 70, at 164.

264. RUNCO, *supra* note 70, at 164; Lauer, *supra* note 253, at 225. In environments where trust is lacking, "people are suspicious of each other and count on high expenses for mistakes that may occur. Without trust, people are afraid of being exploited and robbed of their good ideas." Lauer, *supra* note 253, at 225; *see also* ISAKSEN, DORVAL & TREFFINGER, *supra* note 253, at 189.

265. ISAKSEN, DORVAL & TREFFINGER, *supra* note 253, at 188.

266. Lauer, *supra* note 253, at 189.

Number seven is risk-taking.[267] Organizations that support risk-taking produce a creative climate because they tolerate uncertainty and encourage members to seize opportunities.[268] The eighth dimension, playfulness and humor, refers to how relaxed the atmosphere is.[269] The ninth and final dimension that fosters a creative climate is debates.[270] Organizations high in debates, or conflicts between viewpoints and ideas, foster a creative climate because members are willing to share ideas and "many voices are heard."[271]

In contrast to the first nine dimensions, a tenth dimension, conflict, hinders a creative climate.[272] Conflict—"the presence of personal and emotional tensions"—results in immature behavior, creating a hostile environment.[273]

b. Psychological Press

Unlike physical press, which refers to external factors that impact an individual's creativity, psychological press refers to internal conditions that "press" upon the individual, thus impacting creativity.[274] These internal conditions include attitude, mood, values,[275] affect, collaboration, and brainstorming. Internal conditions have a powerful effect on an individual's creativity because they impact motivation[276]—one's "attitude toward a task."[277] Certain aspects of the environment shape this motivational state or orientation.[278]

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267. ISAKSEN, DORVAL & TREFFINGER, *supra* note 253, at 190; RUNCO, *supra* note 70, at 164.
268. ISAKSEN, DORVAL & TREFFINGER, *supra* note 253, at 190 ("In the high Risk-Taking case, bold initiatives can be taken even when the outcomes are unknown. People feel as though they can 'take a gamble' on their ideas."). In contrast, in a climate where risk is avoided, the mentality is cautious and hesitant. *Id.* To be on the "safe side," people set up committees and cover themselves in many ways before making a decision. *Id.*
269. Lauer, *supra* note 253, at 192; *see also* ISAKSEN, DORVAL & TREFFINGER, *supra* note 253, at 189.
270. ISAKSEN, DORVAL & TREFFINGER, *supra* note 253, at 189; RUNCO, *supra* note 70, at 165; *see also* Caroline Sharp, *Developing Young Children's Creativity: What Can We Learn From Research*, TOPIC, Autumn 2004, at 5, 8, *available at* http://www.nfer.ac.uk/nfer/publications/55502/55502.pdf ("The more favourable situation for creativity seems to be interpersonal exchange, with negotiation of conflicts and comparison of ideas and actions being the decisive elements.").
271. ISAKSEN, DORVAL & TREFFINGER, *supra* note 253, at 189; Lauer, *supra* note 253, at 201; *see also* RUNCO, *supra* note 70, at 164 ("There is a permissive environment with frequent discussion and debate but no actual animosity."). In contrast, in an environment where this dimension is not present, "people follow authoritarian patterns without questioning." ISAKSEN, DORVAL & TREFFINGER, *supra* note 253, at 189.
272. ISAKSEN, DORVAL & TREFFINGER, *supra* note 253, at 189; RUNCO, *supra* note 70, at 165.
273. Lauer, *supra* note 253, at 215.
274. Scritchfield, *supra* note 119.
275. RUNCO, *supra* note 70, at 309.
276. AMABILE, *supra* note 79, at 17.
277. Alfonso Montuori, *Social Psychology*, *in* 2 ENCYCLOPEDIA OF CREATIVITY 345, 346 (2d ed., 2011) ("To be motivated, means *to be moved* to do something. Unless we are moved to do something, it is unlikely we will be creative in doing that task."); *see also* Beth A. Hennessey &

The two motivational orientations that are shaped by the environment are extrinsic and intrinsic.[279] These motivational orientations are significant in that they delineate what a person is able to do and what a person actually does under the circumstances.[280] Intrinsically motivated individuals are motivated "to do something for its own sake, for the sheer pleasure and enjoyment of the task itself."[281] In essence, they are driven by curiosity.[282]

In contrast, extrinsically motivated individuals are not motivated by the task itself.[283] Rather, they are motivated by some external source.[284] Extrinsically motivated people do not enjoy the task; they complete a task for some external reward, financial or otherwise.[285]

Individuals that are intrinsically motivated by the task itself are the most creative.[286] Pursuant to The Intrinsic Motivation Principle of Creativity, "people will be most creative when they feel motivated primarily by the interest, enjoyment, satisfaction, and challenge of the work itself—not by external pressures."[287] In contrast, extrinsic motivation, whether it is money, admiration, or advancement, can dampen creativity because it can cause a person to narrowly focus on the task.[288] The person becomes risk-averse and the goal becomes getting the task completed as quickly as possible.[289]

Researchers have identified numerous extrinsic motivators and external constraints in the environment that decrease intrinsic motivation

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Teresa M. Amabile, *The Conditions of Creativity*, *in* THE NATURE OF CREATIVITY 11, 11 (Robert J. Sternberg ed., 1988) ("[T]here exists a strong and positive link between a person's motivational state—motivational orientation . . .—and the creativity of the person's performance.").

278. Hennessey & Amabile, *supra* note 277, at 11; Beth A. Hennessey, *Intrinsic Motivation and Creativity in the Classroom: Have We Come Full Circle?*, *in* NURTURING CREATIVITY IN THE CLASSROOM 329, 331 (Ronald A. Beghettoi & James C. Kaufman eds., 2010) ("[M]otivation is largely determined by the social environment in which we find ourselves.").

279. Beth A. Hennessey, *The Creativity-Motivation Connection*, *in* THE CAMBRIDGE HANDBOOK OF CREATIVITY, *supra* note 70, at 342, 343.

280. *Id.*

281. *Id.* at 337; *see also* AMABILE, *supra* note 79, at 15; SAWYER, *supra* note 73, at 53 ("[P]eople are so motivated by . . . work that they often find themselves losing track of time.").

282. Hennessey, *supra* note 279, at 343.

283. Montuori, *supra* note 277, at 346.

284. *Id.*

285. Hennessey, *supra* note 278, at 337; *see also* AMABILE, *supra* note 79, at 15.

286. SAWYER, *supra* note 73, at 53; *see also* Hennessey, *supra* note 279, at 343 ("Taken together, intrinsic and extrinsic motivational orientations have been shown to play a major role in determining whether a creative product will be produced or a creative solution to a problem will be generated.").

287. Hennessey & Amabile, *supra* note 277, at 11; *see* AMABILE, *supra* note 79, at 15; Hennessey, *supra* note 278, at 337.

288. DACEY & LENNON, *supra* note 67, at 79.

289. *Id.* While "certain types of extrinsic motivation may enhance—or at least not hamper—creativity, working for reward, under circumstances that are likely to occur naturally in classrooms and work-places every day, can be damaging to both intrinsic motivation and creativity." *Id.* at 80.

and stifle creativity.[290] These extrinsic motivators and constraints undermine the motivation of preschoolers and seasoned professionals.[291] The negative consequences of the extrinsic motivator or constraint depend in part on the individual.[292]

Extrinsic motivators that are task-specific adversely impact intrinsic motivation.[293] For example, the expectation that others will judge one's work seriously undermines the intrinsic motivation and creativity of both children and adults.[294] In addition to the expectation of evaluation, evaluation itself that communicates ineptitude or endangers self-determination[295] can impact an individual's motivation and creativity.[296] On the other hand, evaluation that is informative, constructive, even if negative, and focuses on improving performance or recognizes an individual's contributions can support creativity.[297]

A related extrinsic motivator that can undermine an individual's intrinsic task motivation and creativity is "the promise of a reward made contingent on task engagement."[298] External rewards hinder intrinsic motivation and creativity because they undermine self-determination.[299] Feeling controlled by the reward, people lose any intrinsic interest in the task.[300]

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290. SAWYER, *supra* note 73, at 54. Although these extrinsic motivators—"rewards to manipulate or control behavior, achieving an expected reward, meeting deadlines, winning or competing, or managerial edicts"—stifle creativity, they are frequently used as motivators. Montuori, *supra* note 277, at 346.

291. Hennessey & Amabile, *supra* note 98, at 581.

292. RUNCO, *supra* note 70, at 309.

293. AMABILE, *supra* note 79, at 149.

294. *Id.* at 150; Hennessey, *supra* note 278, at 336. The negative impact of the expectation of evaluation "depends on certain individual-difference traits, on initial interest in the activity, and on initial skill level." AMABILE, *supra* note 79, at 152. In limited circumstances, the expectation that one will be judged can sometimes increase extrinsic motivation, yet not negatively affect intrinsic motivation or performance. Hennessey, *supra* note 278, at 337.

295. AMABILE, *supra* note 79, at 152.

296. *See generally id.* at 131-52.

297. *Id.* at 152; RUNCO, *supra* note 70, at 309.

298. Hennessey, *supra* note 278, at 336; *see also* Hennessey & Amabile, *supra* note 277, at 17 ("The experience of performing a task for money significantly decreases subjects' intrinsic motivation for that activity."). *See generally* AMABILE, *supra* note 79, at 153-78. *But see* Hennessey & Amabile, *supra* note 98, at 581 ("Some researchers trained in the behaviorist tradition have offered the strongly contrasting view that creativity can be easily increased by reward and is seldom undermined.").

299. Hennessey & Amabile, *supra* note 98, at 581. Rewards, however, "can actually enhance intrinsic motivation and creativity when they confirm competence, provide useful information in a supportive way, or enable people to do something that they were already intrinsically motivated to do. These boosting effects are most likely when initial levels of intrinsic motivation were already strong." *Id.*

300. DACEY & LENNON, *supra* note 67, at 79.

Choice in aspects of task engagement also influences intrinsic motivation.[301] People are more creative when they are permitted to make choices about aspects of a task rather than having someone else make all of the decisions.[302] In contrast to choices regarding how one will engage in a task, creativity can be both enhanced and undermined by choices regarding whether to perform a task.[303] Additional extrinsic motivators and task constraints in the environment that adversely impact intrinsic motivation and creativity are deadlines,[304] competition, and surveillance.[305]

4. Product

The fourth and final P is Product,[306] the culmination of a person's creative process, affected by Press.[307] Groups of people or individuals can create these products.[308] Moreover, the products of creativity can be tangible or intangible,[309] including behaviors, presentations, ideas, objects, and all other types of yields.[310]

The three properties of a creative product are novelty, relevance, and effectiveness.[311] A product or outcome is novel if it is "previously

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301. *See generally* AMABILE, *supra* note 79, at 153-77.
302. *Id.* at 171 ("[C]hoice in aspects of how to do a task can enhance creativity and intrinsic interest.").
303. *Id.* at 169.
304. Hennessey & Amabile, *supra* note 277, at 18; Hennessey, *supra* note 278, at 336.
305. Hennessey & Amabile, *supra* note 277, at 18; Hennessey, *supra* note 278, at 336.
306. CROPLEY, *supra* note 73, at 98 ("The Product perspective . . . frames creativity as a property of products and studies what causes creative products to be different from more mundane products.").
307. KAUFMAN, *supra* note 73, at 24 (italics omitted). Researchers have identified one issue with the product perspective: "[I]t does not allow us to understand *how* the creative process emerges or what actually *causes* these differences among products." Santanen, Briggs & deVreede, *supra* note 125, at 2899.
308. Scritchfield, *supra* note 119.
309. *Id.* ("The product may be an idea, a song, a fractal algorithm, a race car or a recipe—tangible or intangible it doesn't matter. It can come from any and all sorts of human endeavor.").
310. RUNCO, *supra* note 70, at 104. Tangible objects include, among other things, artwork, sculptures, musical arrangements, written documents, machines, buildings, and inventions. CROPLEY, *supra* note 73, at 6; MacKinnon, *supra* note 122, at 120. In contrast, intangible creative products include problem-solving tactics used, for example, in business, manufacturing, and government. MacKinnon, *supra* note 122, at 121. Another example of an intangible creative product is the development of "leadership or educational and business climates, which permit those in them to express to the full their creative potential." *Id*. at 120. Moreover, intangible creative products can be "thoughts or ideas—systems for conceptualizing the world—as in philosophy, mathematics, and indeed all reflective disciplines." CROPLEY, *supra* note 73, at 6.
311. CROPLEY, *supra* note 73, at 98; Santanen, Briggs & deVreede, *supra* note 125, at 2899 (endnotes omitted) ("[C]reative products are novel and appropriate to an open-ended task, are adaptive to reality and serve to solve a problem, fit a situation, or accomplish some recognizable goal, are uncommon, are unusual, appropriate to the situation, transform the constraints and boundaries of the situation, and have high condensation power."); Scritchfield, *supra* note 119 ("Creative products or outcomes . . . have three characteristics. They are: novelty, describes the originality or newness of the product (originality, germinality, and transformality); resolution, how the

unknown in a specified setting."[312] It is relevant if "the novelty refers to a specific context."[313] Finally, an effective product or outcome is one that assists with a specific problem.[314]

While some researchers contend that a product is only creative if it is so novel as to be unprecedented, the majority posits that "many novel ideas are based on what already exists."[315] As such, individuals can transform existing knowledge into novel, relevant, and effective products that can propel a field[316] forward. Pursuant to this Propulsion Theory,[317] there are eight types of creative contributions that a product can make.[318]

The first six categories of creative products address how an individual can transform existing knowledge into effectively new and valuable products.[319] Conceptual replication is the first means of propelling a field forward. With conceptual replication, a creative product is produced by transferring something that exists in one field to a new field.[320] A creative product can also propel a field forward through redefinition, the second category of creative products. A redefined product "produces novelty by seeing the known in a new way."[321]

Forward incrementation, which involves extending the known in an existing direction, is the third way a product can make a creative contribution.[322] The fourth contribution is an advanced version of the third—advanced forward incrementation. Advanced forward incrementation involves "extend[ing] the known in an existing direction . . . beyond what is currently tolerable."[323]

The last two ways a creative product can propel its field, redirection and reconstruction and redirection, involve adapting something that is

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product addresses the challenge it was created for; synthesis, how the product goes beyond just addressing the challenge.").

312. CROPLEY, *supra* note 73, at 98.

313. *Id.*

314. *Id.* at 98-99 (discussing effectiveness).

315. David Cropley & Arthur Cropley, *Functional Creativity: "Products" and the Generation of Effective Novelty*, *in* THE CAMBRIDGE HANDBOOK OF CREATIVITY, *supra* note 70, at 301, 307.

316. A field is defined as "some domain of knowledge or area of activity." CROPLEY, *supra* note 73, at 98.

317. *See generally* Robert J. Sternberg, *A Propulsion Model of Creative Contributions*, 3 REV. GEN. PSYCHOL. 83 (1999).

318. KAUFMAN, *supra* note 73, at 26 (noting that the eight different contributions are categorized "based on their relationship to the domain").

319. Cropley & Cropley, *supra* note 315, at 307-08.

320. CROPLEY, *supra* note 73, at 98; KAUFMAN, *supra* note 73, at 26; Cropley & Cropley, *supra* note 315, at 307.

321. CROPLEY, *supra* note 73, at 99; KAUFMAN, *supra* note 73, at 26-27; Cropley & Cropley, *supra* note 315, at 307.

322. CROPLEY, *supra* note 73, at 99; KAUFMAN, *supra* note 73, at 27; Cropley & Cropley, *supra* note 315, at 307.

323. CROPLEY, *supra* note 73, at 99; KAUFMAN, *supra* note 73, at 27-28; Cropley & Cropley, *supra* note 315, at 307.

already in existence.[324] Redirection entails expanding something that already exists in a new direction.[325] An extension of this, reconstruction and redirection entails revisiting an approach that had been discarded earlier and "breath[ing] new life" into it.[326]

The last category of creative products under the Propulsion Theory, re-initiation, does not involve something that is already in existence. With re-initiation, the thinking behind the creative contribution "begins at a radically different point from the current one and takes off in a new direction."[327] As such, it represents the most extreme form of creative contribution.[328]

C. Assessment of Creativity

Despite popular notions that creativity is too complex to measure, there is a long history of creativity assessment.[329] Psychometric approaches to creativity focus on producing tests that gauge creativity,[330] with the goal of being able to foresee who will generate a creative product.[331] As such, researchers have designed hundreds of creativity exams, tools, and rating scales.[332]

The psychometric methods used to measure creativity can be organized pursuant to the Four Ps. Accordingly, psychometric methods investigate (1) the traits and behavior of the creative person;[333] (2) the creative process;[334] (3) the features of environments that promote

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324. CROPLEY, *supra* note 73, at 99; KAUFMAN, *supra* note 73, at 28; Cropley & Cropley, *supra* note 315, at 307.
325. CROPLEY, *supra* note 73, at 99; KAUFMAN, *supra* note 73, at 28; Cropley & Cropley, *supra* note 315, at 307.
326. CROPLEY, *supra* note 73, at 99; *see also* KAUFMAN, *supra* note 73, at 28-29; Cropley & Cropley, *supra* note 315, at 307.
327. CROPLEY, *supra* note 73, at 99; KAUFMAN, *supra* note 73, at 29; Cropley & Cropley, *supra* note 315, at 308.
328. KAUFMAN, *supra* note 73, at 29.
329. Feist, *supra* note 77, at 114; Jonathan A. Plucker & Matthew C. Makel, *Assessment of Creativity*, *in* THE CAMBRIDGE HANDBOOK OF CREATIVITY, *supra* note 70, at 48, 49.
330. ERNESTO VILLALBA, ON CREATIVITY: TOWARDS AN UNDERSTANDING OF CREATIVITY AND ITS MEASUREMENTS 21-22 (2008), *available at* http://publications.jrc.ec.europa.eu/repository/bitstream/111111111/11605/1/eur_on%20creativity_new_.pdf.
331. Plucker & Makel, *supra* note 329, at 59.
332. For a discussion of the strengths and weaknesses of creativity assessment, *see id.* at 61-63.
333. VILLALBA, *supra* note 330, at 22. Some tools used to assess the aspects of a creative person include personality characteristics, self-report check-lists, review of past behavior, biographical reviews, and interest and attitude gauges. *See id.* at 21-22; Plucker & Makel, *supra* note 329, at 56. *See generally* CROPLEY, *supra* note 73, at 114-32; KAUFMAN, *supra* note 73, at 83-110; Plucker & Makel, *supra* note 329, at 56-58. For a discussion of the weaknesses of this approach to assessing creativity, see Plucker & Makel, *supra* note 329, at 61-63.
334. *See generally* CROPLEY, *supra* note 73, at 96-113.

creativity;[335] and (4) the attributes of creative products.[336] The most well-known assessment procedures, however, focus on creative thinking and the creative process.[337]

Measures used to assess creative thinking generally entail divergent thinking.[338] The backbone of creativity assessment,[339] as discussed above, divergent thinking allows an individual to have "a fuller cognitive toolbox from which to pull potential solutions, which from a statistical perspective suggests a greater chance of solving a problem than someone with fewer, less original ideas."[340] Accordingly, unlike standardized tests that are looking for one correct response, divergent thinking tests compel test takers to supply numerous answers to a question.[341]

The most well-known and accepted divergent thinking test used to measure an individual's creative capacity is the Torrance Tests of Creative Thinking (TTCT).[342] Referred to as a creativity test,[343] the TTCT requires

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335. Plucker & Makel, *supra* note 329, at 60-61. Many of the measures used to examine creative environments explore the "correlation between successful work and situational variables," rather than assessing "creative environments per se." *Id.* at 61. Researchers, however, have developed an instrument that "examine[s] employees' perceptions of aspects of their work environment that may influence creative work." *Id*. Teresa Amabile and her colleagues developed KEYS: Assessing the Climate of Creativity Instrument. *Id.* KEYS is a "self-report instrument . . . designed to assess 'individuals' perceptions and the influence of those perceptions on the creativity of their work." *Id.*

336. Plucker & Makel, *supra* note 329, at 51; *see also* VILLALBA, *supra* note 330, at 13. Many researchers believe that psychometric measures of the creative product are the "most appropriate assessments of creativity." Plucker & Makel, *supra* note 329, at 59. For a discussion of assessments used to test the creativity of products, see CROPLEY, *supra* note 73, at 101, and KAUFMAN, *supra* note 73, at 53. The Consensual Assessment Technique is the most popular way of assessing products. KAUFMAN, *supra* note 73, at 53-54.

337. CROPLEY, *supra* note 73, at 102; *see also* Plucker & Makel, *supra* note 329, at 51.

338. Plucker & Makel, *supra* note 329, at 51. Divergent thinking tests of creativity include Guilford's Structure of Intellect Model, Wallach and Kogan's Divergent Thinking Test, and Getzel's Divergent Thinking Test. *Id.* at 52. For a discussion of divergent thinking, see discussion *supra* Part III.B.2.b.i. There are, however, some limitations to divergent thinking measures of creativity. KAUFMAN, *supra* note 73, at 45-49.

339. KAUFMAN, *supra* note 73, at 14.

340. *Id.* at 17.

341. *Id.* at 20; *see also* CROPLEY, *supra* note 73, at 102 ("Divergent thinking tests typically consist of open-ended, relatively unstructured tasks . . . whose function is to promote production of many and varied answers rather than recall or discovery of the single, best answer that already exists and is to be found in the test manual.").

342. KAUFMAN, *supra* note 73, at 26 (describing the TTCT as "the most influential creativity assessment yet created"); Plucker & Makel, *supra* note 329, at 53; Scritchfield, *supra* note 119. For a detailed explanation of the TTCT, *see* KAUFMAN, *supra* note 73, at 25-31, Kyung Hee Kim, *Can We Trust Creativity Tests? A Review of the Torrance Tests of Creative Thinking*, 18 CREATIVITY RES. J. 3, 3 (2006), and Plucker & Makel, *supra* note 329, at 53. This test is used widely "in the business world and in education to assess individual's capacity for creativity." Kim, *supra*, at 3. The TTCT was originally designed to serve as a tool for the enhancement of creativity, not to measure creativity. *Id.* at 4 (listing Torrance's five uses for the test).

343. Kyung Hee Kim, *Yes, There IS a Creativity Crisis*, THE CREATIVITY POST (July 10, 2012), http://www.creativitypost.com/education/yes_there_is_a_creativity_crisis.

individuals to provide multiple responses to both the Figural and the Verbal Tests.[344] The Verbal Tests[345] involve thinking creatively with words and the Figural Tests[346] entail thinking creatively with pictures.[347] The test measures creativity, how the participant is creative, and identifies the creative strengths and weaknesses of the participant.[348]

Specifically, participants' responses are scored for Fluency, Originality, Elaboration, Abstractness of Titles, and Resistance to Premature Closure.[349] Fluency refers to how many relevant ideas the participant comes up with.[350] Originality, in turn, refers to "[t]he number of statistically infrequent ideas" and measures the participant's ability to generate unusual or unique responses.[351] Elaboration refers to "[t]he number of added ideas" and reveals the participant's proficiency at elaborating on an idea.[352]

The next score, Abstractness of Titles, is premised on the belief that "creativity requires an abstraction of thought."[353] As such, "[i]t measures the degree a title moves beyond concrete labeling of the pictures drawn."[354] Finally, Resistance to Premature Closure measures "[t]he degree of psychological openness."[355] This measure is premised on the idea that to be creative, a person must contemplate a diverse array of information and maintain an open mind.[356]

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344. Plucker & Makel, *supra* note 329, at 52.
345. For an explanation of the Verbal Tests, see KAUFMAN, *supra* note 73, at 27.
346. For a discussion of the components of the Figural Tests, see *id.* at 26.
347. *Id.*
348. Kim, *supra* note 343.
349. Kim, *supra* note 342, at 5. In addition, the creative strengths of "emotional expressiveness, storytelling articulateness, movement or action, expressiveness of titles, synthesis of incomplete figures, synthesis of lines or circles, unusual visualization, internal visualization, extending or breaking boundaries, humor, richness of imagery, colorfulness of imagery, and fantasy" are included in the scoring process. *Id*. For a discussion of the scoring process, see *id.*, and KAUFMAN, *supra* note 73, at 29. Flexibility was removed as a category because the scores were similar to fluency. KAUFMAN, *supra* note 73, at 28.
350. Kim, *supra* note 342, at 5. Fluency is operationally defined as the number of responses to a given stimuli, "the total number of ideas given on any one divergent thinking exercise." Plucker & Makel, *supra* note 329, at 52.
351. Kim, *supra* note 342, at 5. Originality is operationalized as the uniqueness of responses to a given stimuli, "the unusualness . . . of an examinee's or respondent's ideas." Plucker & Makel, *supra* note 329, at 52.
352. Kim, *supra* note 342, at 5. Elaboration is operationalized as the extension of ideas with a specific category of responses to a given stimuli, "to fill [ideas] out with details." Plucker & Makel, *supra* note 329, at 52.
353. Kim, *supra* note 342, at 5.
354. *Id*. For a more detailed explanation of Abstractness of Title, see KAUFMAN, *supra* note 73, at 29.
355. Kim, *supra* note 342, at 5.
356. *Id*. For a more detailed explanation of Resistance to Premature Closure, see KAUFMAN, *supra* note 73, at 28-29.

While subject to some dispute, the TTCT is generally recognized as a sound measure of creativity.[357] The large amount of research on the TTCT establishes its reliability[358] and concurrent validity.[359] Predictive validity of the test, however, is subject to debate.[360] Nevertheless, the perceived weaknesses in predictive validity have been attributed to methodological issues rather than the integrity of the test itself.[361] In short:

> The TTCT provide[s] useful insights into creativity as long as the tests are used with sensitivity and good judgment by qualified professionals, because variations in testing procedures can affect scores. . . . [T]he TTCT appears to be a good measure, not only for identifying and educating the gifted but also for discovering and encouraging everyday life creativity in the general population. When used appropriately, the TTCT is an important part of Torrance's legacy and dream: to nurture and enhance creativity among students.[362]

IV. CREATIVITY CRISIS[363]

"*Creativity is often obvious in young children, but it may be harder to find in older children and adults because their creative potential has been suppressed by a society that encourages intellectual conformity*."[364]

The Great Recession and the changing legal landscape have rendered creativity a critical basis of competitive advantage. Yet, in the wake of the need for creative approaches to address the changing legal landscape, a disturbing phenomenon was recently identified: American creative thinking scores on the TTCT have fallen.[365] Creativity in the United States is declining.[366]

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357. Kim, *supra* note 342, at 8 ("Positive features of the TTCT include the wealth of information available on it, the short time needed for administration, and the ease of its administration. It has fewer limitations and cautions to apply, and is more researched and analyzed than any other creativity instrument."). *But see* Plucker & Makel, *supra* note 329, at 54.
358. Kim, *supra* note 342, at 6.
359. KAUFMAN, *supra* note 73, at 29-30.
360. *Id.* at 40.
361. *Id.*
362. Kim, *supra* note 342, at 11.
363. Kim, *supra* note 15.
364. Robert J. Sternberg, *The Nature of Creativity*, 18 CREATIVITY RES. J. 87, 93 (2006).
365. Kim, *supra* note 15, at 293. According to Kim's study, "creative thinking is declining over time among Americans of all ages, especially in kindergarten through third grade." *Id.* Moreover, her study reveals that this "decline is steady and persistent, from 1990 to present and ranges across the various components tested by the TTCT." *Id.* For this study, Kim examined 272,599 TTCT scores from people ranging in age from kindergarten through adulthood from all regions of the country. *Id.* at 287.
366. This is in contrast to IQ scores, which have been rising every year since 1990. *Id.* at 285. This effect is known as the Flynn effect. *Id.*

A. Decline in Creativity Scores

Analyzing data on each of the subscales of creative potential, Dr. Kyung Hee Kim discovered that, in recent years, creativity has plummeted.[367] Specifically, she found that Elaboration scores began falling in 1984, indicating that people are not as able to elaborate ideas and think reflectively and that people are not as persistent in their attempts to be creative.[368] Since 1990, Fluency and Originality scores have also declined, indicating that Americans are not as proficient at generating unusual ideas.[369] This drop in Originality scores "is an indirect measure of growing social pressures towards conformity and status quo, and increasing intolerance for new ideas."[370]

The decline in scores for Resistance to Premature Closure[371] and Abstractness of Titles[372] began in 1998.[373] This decline signifies that Americans are not as able to postpone judgment[374] and have a harder time looking past the easy answers.[375] Finally, her research determined that the scores from the Checklist of 13 Creative Strengths demonstrate that creative attitudes have been declining since 1990.[376]

B. Cause of Decline

"*We are all born with creative potential: We don't grow into creativity, we grow out of it*."[377]

While scientists have yet to conduct research to determine the causes of this decline in American creativity scores, there has been speculation.[378]

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367. *The Decline of Creativity in the United States: 5 Questions for Educational Psychologist Kyung Hee Kim*, ENCYC. BRITANNICA BLOG (Oct. 18, 2010), http://www.britannica.com/blogs/2010/10/the-decline-of-creativity-in-the-united-states-5-questions-for-educational-psychologist-kyung-hee-kim/ [hereinafter *5 Questions*]; *see also* Kim, *supra* note 343.
368. *5 Questions*, *supra* note 367; *see also* Kim, *supra* note 15, at 288.
369. Kim, *supra* note 343; Kim, *supra* note 15, at 287-92.
370. Kim, *supra* note 343.
371. Kim, *supra* note 15, at 289, 291.
372. *Id.* at 288, 290-91.
373. Kim, *supra* note 343.
374. *Id.*
375. *Id.*
376. *Id.* Specifically, Kim notes:

> We are becoming less verbally and emotionally expressive or sensitive and less empathetic, less responsive in a [sic] kinesthetic and auditory ways, less humorous, less imaginative, less able to visualize ideas, less able to see things from different angles, less unconventional, less able to connect seemingly irrelevant things together, less able to synthesize information, and less able to fantasize or be future oriented.

Id.
377. ROBINSON, *supra* note 1, at 49.

One cause is the proliferation of technology.[379] For example, the amount of "screen time" that children have today has increased, whether it be the television, the computer, or video games.[380] Accordingly, children are spending less time participating in creative endeavors such as playing outdoors.[381] A related cause of the decline in creativity scores is the amount of "electric company" children now have.[382] Children spend more time interacting with technology than they do interacting with people, distracting them from focusing on the important information that is being imparted upon them.[383]

Another speculated cause of the decline in American creativity scores is the devaluation of creativity, creative people, and creative ideas at home, in school,[384] and in society.[385] The No Child Left Behind Act (NCLB),[386] which mandates states to administer standardized tests in reading/language arts and mathematics beginning in third grade and ending in eighth grade, has had a profound impact on creativity in schools.[387] Teachers are pressured to "teach to the test" rather than focusing on kindling the students' imagination and curiosity.[388] Moreover, a standardized test, NCLB encourages rote learning rather than critical, creative thinking, thus decreasing "students' natural curiosity and joy for learning in its own

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378. *Explaining the Decline of Creativity in American Children: A Reply to Readers*, ENCYC. BRITANNICA BLOG (Dec. 23, 2010), http://www.britannica.com/blogs/2010/12/explaining-the-decline-of-creativity-in-american-children-a-reply-to-readers/ [hereinafter *Explaining the Decline*].

379. *Id.*

380. *Id.*

381. *5 Questions*, *supra* note 367; *Explaining the Decline*, *supra* note 378.

382. *Explaining the Decline*, *supra* note 378.

383. *Id.*

384. *Id.* "For example, teachers claim to value creativity in children, but in fact it is proven that they generally dislike creative behaviors and characteristics in the classroom because they are inconvenient and hard to control." *Id.*

385. *Id.* (noting that "research and development grants and programs are declining; society in general has less a sense of humor about mischief and diminishing tolerance for unusual behavior").

386. No Child Left Behind Act of 2001, Pub. L. No. 107-110, 115 Stat. 1425 (2002).

387. *See Explaining the Decline*, *supra* note 378. Pursuant to the NCLB, school funding is linked to the students' performance on the tests. ROBINSON, *supra* note 1, at 61.

388. *Explaining the Decline*, *supra* note 378; *see also* ROBINSON, *supra* note 1, at 62. Moreover:

> NCLB may stifle teachers' creativity because the high pressure to cover the content required to produce passing test scores overrides the desire (and time) to stimulate children's imagination and curiosity. NCLB does not value teachers' skills that could encourage the creative application of classroom learning to real life situations. Teaching professionals are reduced to teaching technicians with less ability to develop creative approaches to engage students because they are required to cover what is on the tests.

Explaining the Decline, *supra* note 378.

right."[389] Accordingly, NCLB stifles creativity in schools by discouraging purposeful creativity development.[390] Fortunately, this trend is reversible.

C. Reversing the Trend: Fostering Creativity

Creativity can be renewed and fostered at any age.[391] Efforts to enhance creativity do not increase an individual's inborn potential.[392] Rather, they insure that an individual's creative potential is maximized.[393] Not necessarily inborn traits, the traits of creative individuals can be attained through intentional effort throughout one's lifetime.[394] Similarly, the creative process is a learned behavior that can be taught and improved.[395] Finally, environments, both physical[396] and psychological,[397] conducive to creativity can be cultivated.

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389. *Explaining the Decline*, *supra* note 378. This focus on standardized testing caused by NCLB has also "led to the elimination of content areas and activities, including gifted programs, electives, arts, foreign languages, and elementary science and recess, which leaves little room for imagination, and critical and creative thinking." *Id.*; *see also* ROBINSON, *supra* note 1, at 62 (noting that "since NCLB was passed into law, almost half of the school districts have eliminated or seriously reduced their arts programs, and the associated teaching posts").

390. *Explaining the Decline*, *supra* note 378; *cf.* DACEY & LENNON, *supra* note 67, at 69 ("Schools suppress creativity."); ROBINSON, *supra* note 1, at 49 ("Dominant forms of education actively stifle the conditions that are essential to creative development."). It has also been speculated that contemporary parenting styles and over-diagnosis and over-prescription of attention deficit/hyperactivity disorder have played a role in the decline in creativity scores on the TTCT in the United States. *Explaining the Decline*, *supra* note 378.

391. *See, e.g.*, ROBINSON, *supra* note 1, at 245 ("There is a lot that individuals and organizations can do immediately, to revive their creative capacities."); VILLALBA, *supra* note 330, at 11; Raymond Nickerson, *Enhancing Creativity*, *in* HANDBOOK OF CREATIVITY, *supra* note 70, at 392, 400-01; Jonathan A. Plucker & Mark A. Runco, *Enhancement of Creativity*, *in* 1 ENCYCLOPEDIA OF CREATIVITY, *supra* note 118, at 669, 670 (arguing that everyone can improve his or her creativity); David R. Culp, *Law School: A Mortuary for Poets and Moral Reason*, 16 CAMPBELL L. REV. 61, 92 (1994) ("Lost creativity can be renewed, at least to some degree, at any age.").

392. Plucker & Runco, *supra* note 391, at 670.

393. *Id.*

394. Michael C. Zilch, *The Creative Person*, http://tomsclasses.files.wordpress.com/2011/03/the-creative-person-zilch.pdf (last visited Apr. 13, 2013) ("It is important to realize that while each of the above traits are necessary for creative individuals to utilize, if they are not present within your life at this point, the traits necessary for creative production can be developed throughout your lifetime.").

395. *See generally* Gerard J. Puccio & Susan Keller-Mathers, *Enhancing Thinking and Leadership Skills*, *in* CREATIVITY: A HANDBOOK FOR TEACHERS, *supra* note 254, at 285. For example, the Creative Problem Solving (CPS) process is a "deliberate model for addressing complex problems" that can be taught. *Id.* at 297. The three stages of the CPS model—that reflect an individual's natural approach to problem solving—are Clarification, Transformation, and Implementation. *Id.* at 285; *see also* Nickerson, *supra* note 391, at 400-01 (discussing CPS and the role of brainstorming).

396. For example, suggestions for creating a classroom environment that encourages creative thinking include:

> 1. Support and reinforce unusual ideas and responses of students. 2. Use failure as a positive to help students realize errors and meet acceptable standards in a supportive environment. 3. Adapt to student interests and ideas in the classroom whenever

Educators can maximize the creative potential of their students by incorporating creativity training and establishing optimal conditions.[398] To support student creativity, educators must explain the creative process, teach creativity techniques, offer students the opportunity to practice creative thinking, "value and appreciate creativity, and model creative behavior themselves."[399] Fostering creativity in students is consistent with imparting knowledge and skills to students.[400]

V. BARRIERS TO CREATIVITY

The legal profession must face the creativity crisis head on. Today's children are the lawyers of tomorrow. In light of the changing legal landscape,[401] the legal profession today needs creative lawyers that can invent new models for delivering legal services.

Yet, despite the numerous ways in which law schools and the legal profession can stimulate and develop the creative capacities of their

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possible. 4. Allow time for students to think about and develop their creative ideas. Not all creativity occurs immediately and spontaneously. 5. Create a climate of mutual respect and acceptance between students and between students and teachers, so that students can share, develop, and learn together from one another as well as independently. 6. Be aware of the many facets of creativity besides arts and crafts: verbal responses, written responses both in prose and poetic style, fiction and nonfiction form. Creativity enters all curricular areas and disciplines. 7. Encourage divergent learning activities. Be a resource provider and director. 8. Listen and laugh with students. A warm, supportive atmosphere provides freedom and security in exploratory thinking. 9. Allow students to have choices and be a part of the decision-making process. Let them have a part in the control of their education and learning experiences. 10. Let everyone get involved, and demonstrate the value of involvement by supporting student ideas and solutions to problems and projects.

Daniel Fasko, Jr., *Education and Creativity*, 13 CREATIVITY RES. J. 317, 319-20 (2001) (citing JOHN F. FELDHUSEN & DONALD J. TREFFINGER, CREATIVE THINKING AND PROBLEM SOLVING IN GIFTED EDUCATION 32 (1980)).

397. For example, studies have shown that individuals can be immunized against the negative effects of reward on creativity. ROBERT W. WEISBERG, UNDERSTANDING INNOVATION IN PROBLEM SOLVING, SCIENCE, INVENTION, AND THE ARTS 529-30 (2006).

398. *See* STARKO, *supra* note 70, at 121 ("[T]ime spent in activities that specifically teach creative thinking skills and attitudes sends a valuable message to students"); Culp, *supra* note 391, at 92; Carrie Menkel-Meadow, *"Aha? Is Creativity Possible in Legal Problem Solving and Teachable in Legal Education?*, 6 HARV. NEGOT. L. REV. 97, 142-44 (2001) (suggesting alternative program structure to teach legal creativity and effective problem solving); *supra* notes 396-97 and accompanying text. For a discussion of ways to foster creativity in the classroom, see generally, for example, PROBLEM-BASED LEARNING AND CREATIVITY (Oon-Seng Tan ed., 2009), NURTURING CREATIVITY IN THE CLASSROOM, *supra* note 278, SAWYER, *supra* note 73, at 295-314, STARKO, *supra* note 70, at 119-72, and Nickerson, *supra* note 391, at 400-19.

399. RUNCO, *supra* note 70, at 179; *see also* R. Keith Sawyer, *A Call to Action: The Challenges of Creative Teaching and Learning*, TCHRS. COLL. REC. (forthcoming), *available at* http://www.artsci.wustl.edu/~ksawyer/PDFs/TCR.pdf (listing teacher behaviors associated with fostering creativity).

400. CROPLEY, *supra* note 73, at 136.

401. *See* discussion *supra* Part II.

students and associates,[402] by and large law schools and the legal profession suppress rather than support the development of creative potential. The traditional law school education and legal practice model do not provide sufficient opportunities for practicing creative thinking and do not value creative thinking. Moreover, legal educators and lawyers could do a better job demonstrating creative behavior for their students and associates. Building on the information provided above about creativity, this Part reveals just some of the barriers to creativity in law schools and legal practice.[403] A detailed examination of how to foster creativity in the legal profession is beyond the scope of this Article.

A. In Law School

"*[L]aw schools are filled with creative, bright individuals who, given the right atmosphere, will be inventors of new models for legal services delivery in addition to practitioners of law*."[404]

The focus in the twenty-first century has been on graduating practice-ready law students.[405] In the wake of the Great Recession and its profound impact on the legal profession, law schools need to do more than that—they need to foster creativity.[406] Legal education, however, suppresses creativity. For example, four barriers to the promotion of creative potential in law schools are (1) the Socratic method; (2) the traditional evaluation

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402. ROBINSON, *supra* note 1, at 49, 245; Nickerson, *supra* note 391, at 400-01; *see also* discussion *supra* Part IV.C.

403. That is not to say that law schools and the legal profession do not encourage creative thinking at all. For example, law schools provide students with knowledge and expertise about substantive areas of law, and individuals cannot be creative in the absence of this domain knowledge. In addition, legal education can encourage creativity because it trains students to be tolerant of ambiguity in that there is seldom one answer. Katharine Rosenberry, *Organizational Barriers to Creativity in Law Schools and the Legal Profession*, 41 CAL. W. L. REV. 423, 429 (2005).

404. Renee Newman Knake, *Cultivating Learners Who Will Invent the Future of Law Practice: Some Thoughts on Educating Entrepreneurial and Innovative Lawyers*, 38 OHIO N.U. L. REV. 847, 850 (2012).

405. *See generally* ROY STUCKEY ET AL., BEST PRACTICES FOR LEGAL EDUCATION (2007); WILLIAM M. SULLIVAN ET AL., EDUCATING LAWYERS: PREPARATION FOR THE PROFESSION OF LAW (2007).

406. Law schools:

> cannot limit themselves to the transmission of set contents, techniques and values, since these will soon be useless or even detrimental to living a full life, but must also promote flexibility, openness for the new, the ability to adapt or see new ways of doing things, and courage in the face of the unexpected. These properties are becoming increasingly necessary if people are to adapt to a changing world and will probably continue to be important throughout each person's lifetime, whereas specific skills and knowledge rapidly become obsolete.

CROPLEY, *supra* note 73, at 136.

methods; (3) the culture of competition; and (4) the lack of collaborative opportunities.[407]

1. Socratic Method

The Socratic method,[408] the pedagogical technique that is one of the defining attributes of American legal education, serves as one barrier to creativity in law schools. With the Socratic method, the professor calls on a student and proceeds to ask a series of questions in an effort to get the students to probe into a problem in detail.[409] This pedagogical technique has been criticized on many fronts.[410] The most universal criticism is that placing one student on the "hot seat" is "cruel and psychologically abusive."[411] This Socratic technique "exalts 'criticism over imagination.'"[412]

The Socratic method can suppress creativity because it discourages many of the dimensions that facilitate a creative environment.[413] For example, the intimidating nature of the Socratic method does not create an emotionally safe environment characterized by trust and openness.[414] The power imbalance between law professor and student creates an intimidating environment in which students are hesitant to constructively dispute ideas.[415]

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407. This is not meant to be an exhaustive list, but rather four examples of barriers to creativity in legal education.

408. *See generally* Valerie Ross, *The Socratic Method: What Is It and How To Use It in the Classroom*, SPEAKING OF TEACHING, Fall 2003, at 1, *available at* http://www.stanford.edu/dept/CTL/cgi-bin/docs/newsletter/socratic_method.pdf (describing how the Socratic method should work).

409. Joseph A. Dickinson, *Understanding the Socratic Method in Law School Teaching After the Carnegie Foundation's Educating Lawyers*, 31 W. NEW ENG. L. REV. 97, 104–05 (2009); Jeffrey D. Jackson, *Socrates and Langdell in Legal Writing: Is the Socratic Method a Proper Tool for Legal Writing Courses?*, 43 CA. W. L. REV. 267, 271-73 (2007); Orin S. Kerr, *The Decline of the Socratic Method at Harvard*, 78 NEB. L. REV. 113, 132 (1999); Oriana Carravetta, *The Reality of the Socratic Method in Law School Classrooms: A Call To Preserve Our Longstanding Tradition*, ALBANY GOV'T L. REV. ONLINE (Mar. 14, 2011, 10:02 AM), http://aglr.wordpress.com/2011/03/14/the-reality-of-the-socratic-method-in-law-school-classrooms-a-call-to-preserve-our-longstanding-tradition/.

410. Phillip E. Areeda, *The Socratic Method*, 109 HARV. L. REV. 911, 914-21 (1996) (noting student complaints regarding the ineffectiveness of the Socratic method); Kerr, *supra* note 409, at 118 (asserting that the Socratic method demonstrates a bias towards women); Michael L. Richmond, *Teaching Law to Passive Learners: The Contemporary Dilemma of Legal Education*, 26 CUMB. L. REV. 943, 948-49 (1996); Carravetta, *supra* note 409; *see also* Robert D. Dinerstein, *Limitations to the Method*, N.Y. TIMES (Dec. 15, 2011), http://www.nytimes.com/roomfordebate/2011/12/15/rethinking-how-the-law-is-taught/there-are-limitations-to-the-socratic-method.

411. Kerr, *supra* note 409, at 118.

412. Culp, *supra* note 391, at 63.

413. *See* discussion *supra* Part III.B.3.a.

414. *See supra* notes 263-64 and accompanying text.

415. Rosenberry, *supra* note 403, at 431; *see also* Culp, *supra* note 391, at 76 (noting that a "law faculty has almost total power over the students").

The Socratic method also adversely impacts the seventh dimension of a creative environment, risk-taking.[416] Risk-taking, which frequently results in failure, is necessary for creativity.[417] The Socratic method, however, discourages risk taking and failure as students are wary of taking the intellectual risk of sharing their ideas in class for fear of being ridiculed by their peers and their professor.[418]

In addition to the negative impact on the physical press, the Socratic method also adversely impacts the students' psychological press.[419] The Socratic method involves external evaluation, both by the professor and the class.[420] This constant expectation of external critical evaluation reduces intrinsic motivation and thus creativity.[421]

The Socratic method not only has a negative impact on the creative press; this teaching method also tends to stifle creative thinking. Students frequently perceive that the professor is searching for a specific answer to a question.[422] This focus on one specific solution encourages convergent thinking rather than divergent thinking, which is critical to creativity.[423]

2. Evaluation Methods

Another characteristic of legal education that serves as a barrier to creativity is the means by which students are evaluated. In a majority of classes, a student's grade is determined by one three-hour exam at the end of the course.[424] There is little, if any, opportunity for feedback during the course.[425] Moreover, there is generally no feedback on the exam itself except for the grade.[426]

As with the Socratic method of teaching, this means of evaluating students negatively impacts creative press.[427] For instance, on a psychological level, the end-of-the-course exam decreases intrinsic motivation.[428] The expectation of evaluation and the evaluation itself at the end of the course causes students to focus on the grade rather than being

416. *See supra* notes 267-68 and accompanying text.
417. Rosenberry, *supra* note 403, at 433.
418. Culp, *supra* note 391, at 67.
419. *See* discussion *supra* Part III.B.3.b.
420. Culp, *supra* note 391, at 68.
421. *See supra* notes 293-96 and accompanying text.
422. Culp, *supra* note 391, at 73.
423. *See* discussion *supra* Part III.B.2.b.i.
424. Samantha A. Moppett, *Control-Alt-Incomplete? Using Technology to Assess "Digital Natives,"* 12 CHI.-KENT J. INTELL. PROP. L. (forthcoming Spring 2013).
425. *See id.*
426. *Id.*
427. *See* discussion *supra* Part III.B.3.
428. Rosenberry, *supra* note 403, at 439.

motivated by the task itself, learning and understanding the material.[429] While constructive feedback can support creativity, students generally get no feedback except for a grade at the end of the course.[430] Simply incorporating assessment opportunities throughout the course, preferably formative, would help to foster students' creativity.[431]

The timed exam also negatively impacts the physical press.[432] For example, limiting the amount of time to respond to essay questions runs counter to the third dimension of a creative environment, idea time.[433] The timed law school exam prohibits students from generating alternatives.[434]

Moreover, the focus on a single or best answer on these exams, whether essay or multiple choice, discourages creative thinking. Rather than asking students to engage in divergent thinking to generate as many alternative solutions as possible, the exams emphasize convergent thinking processes.[435] Students "invest[] . . . staggering amounts of energy in the quest for *the correct solution* which will satisfy the teacher, and . . . avoid[] . . . *the wrong answer* which will provoke argument of 'ice cold indifference.'"[436]

3. Culture of Competition

The highly competitive nature of law school is another facet of legal education that inhibits creativity.[437] This atmosphere of intense competition is created by the ranking of students through "relentless public competitions . . . for grades, jobs, law journals, moot court, and clerkships."[438] Accordingly, law students compare themselves with their classmates to measure their worth.[439]

Conformity trumps creativity in a culture that pressures students to constantly compare themselves to others. Law school thus inhibits the development of creative traits.[440] For instance, one of the defining

429. *See supra* notes 293-96 and accompanying text.
430. *See* Moppett, *supra* note 424.
431. *See id.*; Rosenberry, *supra* note 403, at 438.
432. *See* discussion *supra* Part III.B.3.a.
433. *See supra* notes 259-60 and accompanying text.
434. Culp, *supra* note 391, at 74.
435. *Id.* at 72.
436. Duncan Kennedy, *How the Law School Fails: A Polemic*, 1 YALE REV. L. & SOC. ACTION 71, 79 (1970).
437. Robert Yeamans, *Creativity and Legal Education*, 23 J. LEGAL EDUC. 381, 391 (1971) ("The overwhelmingly competitive atmosphere at many law schools must utterly crush [creativity] out.").
438. Susan Sturm & Lani Guinier, *The Law School Matrix: Reforming Legal Education in a Culture of Competition and Conformity*, 60 VAND. L. REV. 515, 520 (2007).
439. *Id.* at 523.
440. *Id.* at 519; *see also* discussion *supra* Part III.B.1 (discussing traits of creative individuals).

characteristics of creative individuals is stimulus freedom.[441] In an effort to compete, students are discouraged from bending the rules for fear of being wrong and falling behind in the competition.

Similarly, this fear of falling behind discourages risk-taking, another prominent trait that has been identified in creative individuals.[442] In a culture of competition and conformity[443] in which students strive for good grades, good reviews on classroom performance, and good opinions from peers and professors, students are not willing to take a risk because risk-taking can result in failure.[444]

This culture of competition that law school breeds also adversely impacts psychological press.[445] For example, students are externally motivated to perform well on exams by the prospect of a reward. The external reward takes the form of a grade that will translate into a good class rank, honor board membership, or employment opportunities.[446] This promise of a reward undermines intrinsic motivation and stifles creativity.[447]

4. Lack of Collaborative Opportunities

The final barrier to creativity that this Article will address is legal education's preoccupation with individual learning and achievement. Collaborative thinking enhances the creative process.[448] Contrary to the popular belief that creativity is produced by the "lone genius," many breakthrough innovations result from group work.[449]

Nevertheless, as discussed above, the prominent means of assessment is a single exam at the end of the semester that is taken individually.[450] Even seminar courses with a paper requirement focus on students working

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441. *See supra* notes 133-37 and accompanying text.
442. *See supra* notes 143-44 and accompanying text.
443. *See generally* Sturm & Guinier, *supra* note 438.
444. Moreover, legal education may also inhibit creativity because it teaches one "to be overly careful, to see all sides of the issue, and to leave no stone unturned in one's analysis." Culp, *supra* note 391, at 88.
445. *See* discussion *supra* Part III.B.3.b.
446. *See* Sturm & Guinier, *supra* note 438, at 523.
447. Hennessey, *supra* note 278, at 331 ("[S]chool environments fraught with rewards, competition, and frequent evaluation do not offer the best situations for students' overall learning. . . . [C]lassrooms incorporating these extrinsic constraints might not be the best environments for promoting student's creativity."); *see also supra* notes 298-300 and accompanying text.
448. STARKO, *supra* note 70, at 77 (noting the view that "thought communities . . . more powerful than [the thinking] of a single individual" can enhance the "development and functioning of creative processes").
449. *Id.* (quoting R. KEITH SAWYER, GROUP GENIUS: THE CREATIVE POWER OF COLLABORATION ix, 7 (2007)). For a description of four patterns that characterize creative collaboration, *see id.* at 78.
450. *See supra* note 424 and accompanying text.

on their own. Moreover, as a general rule, the classroom experience does not involve collaboration. Rather, it focuses on the interaction between the professor and the students. While legal education focuses on individual learning, creativity in the work world, the world that legal educators are preparing their students for, is typically collaborative.[451]

B. In Practice

The barriers to creativity do not end upon graduation from law school. Despite the need for creativity in legal practice today,[452] the legal profession also imposes barriers to the development of creative potential. These barriers include, inter alia, (1) time pressures, (2) billable hours, and (3) the rigid hierarchical structure of legal practice.

1. Time Pressures

The practice of law is replete with time pressures. These time pressures are one facet of legal practice that inhibits creativity. One time pressure that associates continually face is impossibly tight deadlines.[453] These deadlines adversely impact an associate's psychological press because associates are left feeling overwhelmed and unfulfilled.[454] This feeling, in turn, damages an individual's motivation and, thus, creativity.[455]

Moreover, the intense time constraints placed on associates to meet deadlines negatively impacts the physical press. For example, the lack of sufficient idea time, one of the dimensions of a creative environment, forecloses idea exploration and creative thinking.[456] Moreover, the need to complete a project as quickly as possible dissuades associates from taking risks, another dimension of creative environments.[457] Under time constraints, associates are more inclined to be cautious and are hesitant to advance new ideas that may take more time to develop or that may fail.

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451. SAWYER, *supra* note 161, at 424.

452. *See* discussion *supra* Part II. Lawyers need to be creative in order to:

> identify[] new forms of legal service, different ways of delivering legal advice to . . . clients, novel ways of pricing, different ways of pitching, new ways to distinguish [their] firm in the legal recruitment market, and new ways by which teams can reach an even higher level of performance, as well as the formulation of a new and distinctive strategy.

Dennis Sherwood, *Koestler's Law: The Act of Discovering Creativity—and How To Apply It in Your Law Practice*, L. PRAC., Dec. 2006, at 44, 45, *available at* http://www.americanbar.org/publications/law_practice_home/law_practice_archive/lpm_magazine_articles_v32_is8_an5.html.

453. *Cf.* Amabile, *supra* note 253, at 82.

454. *Id.*

455. *Id.*; *see also* discussion *supra* Part III.B.3.ii.

456. *See supra* notes 259-60 and accompanying text.

457. *See supra* notes 267-68 and accompanying text.

2. Billable Hours

Another characteristic unique to law firms, the billable hour, also negatively impacts creativity. Most law firms bill their clients by the hour.[458] Accordingly, in order for associates to be profitable to the firm, they must bill enough hours to not only cover their salary and overhead, but also to make money for the firm.[459] Accordingly, firms have an incentive to have associates bill as many hours as possible to generate as much revenue as possible for the firm.[460] The minimum billable hours required typically range between 1700 and 2300 hours, although higher billable hour quotas are not uncommon.[461]

Billable hours can act as a barrier to creativity because they adversely impact the associate's psychological press.[462] Frequently, firms establish bonus or penalty clauses to ensure that the associates meet their billable hour quota.[463] Moreover, billable hours are one of the major factors employed to determine whether an associate will become a partner.[464] Accordingly, rather than being intrinsically motivated by the task that they are working on, associates are extrinsically motivated by the reward or threat of recourse.[465] Thus, creativity is inhibited.[466]

Billable hours can also suppress creativity because they discourage some of the dimensions of a creative environment.[467] For instance, the intense pressure to fulfill the billable hours required results in the lack of idea time.[468] Associates, faced with the pressure of billing, are not encouraged to discuss their ideas with others.

The time pressure imposed by impossibly tight deadlines and billable hours also causes persistent stress.[469] This "[e]xcess tension, [in turn], shuts

458. *The Truth About the Billable Hour*, YALE L. SCH., http://www.law.yale.edu/documents/pdf/CDO_Public/cdo-billable_hour.pdf (last visited Apr. 14, 2013).
459. *Id.*
460. *Id.*
461. *Id.*
462. *See* discussion *supra* Part III.B.3.b.
463. *See What Are Billable Hours?*, WISEGEEK, http://www.wisegeek.com/what-are-billable-hours.htm (last visited Apr. 4, 2013).
464. *See* Raffaele Murdocca, *Five Keys to Making Partner*, BCG, http://www.bcgsearch.com/article/60583/Five-Keys-to-Making-Partner/ (last visited Apr. 3, 2013) (claiming that it is "imperative that [associates] at least hit [their] minimum billable-hour requirement" if they want to make partner).
465. Amabile, *supra* note 453, at 22 ("A culture of evaluation leads people to focus on the external awards and punishments associated with their output, thus increasing the presence of extrinsic motivation and its potentially negative effects on intrinsic motivation.").
466. *Id.*
467. *See* discussion *supra* Part III.B.3.a.
468. *See supra* notes 259-60 and accompanying text.
469. Rosenberry, *supra* note 403, at 438 ("In many . . . firms the most persistent stress is produced by a perceived lack of time to accomplish the tasks.").

down the mind."[470] Thus, excessive stress caused by time constraints and billable hours inhibits creativity.

3. Rigid Hierarchy

The rigid hierarchy characteristic of law firms also serves as a barrier to creativity in legal practice. Typically, law firms have a definite hierarchy in place that is organized pursuant to each group's ability to make money.[471] Typically, equity partners are at the top of the hierarchy, with non-equity partners, senior associates, junior associates, and paralegals in descending rank order.[472]

Accordingly, there exists a large "power distance index" between workers of different status.[473] Communication flows from the top down in organizations with a rigid hierarchy.[474] Thus, law firms with a rigid hierarchy assume that those at the top of the hierarchy should share their expertise with those lower in the hierarchy.[475] Those at the lower end of the hierarchy, however, are not encouraged to share their thoughts and ideas with the senior members.[476]

This rigid, hierarchical structure that encourages conformity, highlights status symbols, and discourages internal communication impedes creativity.[477] Specifically, some of the dimensions that support a creative environment are compromised.[478] For instance, the absence of open and straightforward communication thwarts the development of an atmosphere of trust and openness.[479] Accordingly, individuals are hesitant to put forth new, and perhaps unconventional, ideas.[480]

The restriction in the flow of information produced by the rigid hierarchy also impedes the dimension of debates.[481] Only the few who are at the top of the pecking order are heard. Creativity is deterred because individuals are not comfortable sharing their ideas or challenging the ideas

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470. *Id.*
471. *Will Law Help You Think Creatively?*, SHOULD YOU BE A LAWYER?, http://www.shouldyoubealawyer.com/WillLawHelpYouThinkCreatively.htm (last visited Apr. 4, 2013) (noting that the ability to generate revenue is by and large determined by "seniority and ability to bring in clients").
472. *Id.*
473. *Id.*
474. Rosenberry, *supra* note 403, at 427.
475. *Id.*
476. *Id.*
477. *Id.*
478. *Id.*; *see also* discussion *supra* Part III.B.3.a.
479. *See supra* notes 263-64 and accompanying text.
480. *See supra* note 264 and accompanying text.
481. *See supra* notes 270-71 and accompanying text.

of others.[482] For similar reasons, the dimension of risk taking is inhibited.[483]

VI. CONCLUSION

"*Creative thinking is the wellspring for change*."[484]

"*Thinking creatively is not just necessary for teaching and practice, it is necessary for life*."[485]

In the wake of the Great Recession, "the legal profession is . . . entering unchartered waters."[486] The economic downturn brought about significant economic changes to the legal profession.[487] Coupled with sweeping technological and cultural changes, "[t]he future for lawyers could be prosperous or disastrous."[488]

Lawyers who fail to recognize these changes and decide to maintain the status quo will struggle to stay alive. To survive, lawyers must develop creative responses to the evolving legal landscape.[489] To prosper, lawyers need to adapt their traditional legal practices, expand the services offered, and adopt new technological tools and means of sourcing legal work.[490]

The legal profession must equip future lawyers to provide legal services in novel ways that reflect the technological innovations, economic realities, and cultural shifts that the future holds.[491] With creativity scores in the United States declining, the legal profession has an obligation to support—rather than discourage—creativity so that lawyers can generate

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482. *See supra* note 271 and accompanying text.
483. *See supra* notes 288-89 and accompanying text.
484. Puccio & Keller-Mathers, *supra* note 395, at 297.
485. Rosenberry, *supra* note 403, at 457.
486. Thies, *supra* note 24, at 599.
487. *See* discussion *supra* Part II.
488. SUSSKIND, *supra* note 11, at 269.
489. *Id.*; *see also* Cropley & Cropley, *supra* note 315, at 304 ("[I]t is a globally accepted awareness that right now any individual, company or country wishing to survive in the twenty-first century must develop the brain's seemingly infinite capacity to create and to innovate."). Susskind notes:

> It is apparent that lawyers are heading for a time of great change and so we should ask whether and how lawyers, firms, and the profession might be the authors of this transformation. . . . For the law firm, there are three broad ways in which it can innovate: in the ways in which it delivers its services (perhaps through some ground-breaking online system); in the actual advice it offers (for instance, a novel form of contractual agreement); or in the way the business is run (for example, in the way in which graduates are recruited).

SUSSKIND, *supra* note 11, at 269.
490. SUSSKIND, *supra* note 11, at 269.
491. *Id.*

novel, concrete solutions to the pressing issues facing the legal profession today.[492]

492. Knake, *supra* note 404, at 850 (arguing that legal education has an obligation to offer the tools and cultivate the spirit for invention to flourish so that our students will be the ones to create new method of delivering legal services).