

# The Current

## The Journal of PLI Press

Why the RAISE Act's Points System Won't Fix Immigration

*Austin T. Fragomen, Jr., Careen Shannon*

Artificial Intelligence: Prepare for the Reinvention of Everything

*Peter Brown, Jonathan T. Kaplan*

Unmanned Aircraft Systems: The Evolving Legal Landscape in the United States and Europe

*Kenneth P. Quinn, Jennifer Trock, Graham C. Keithley, Chris Leuchten*

New Methods for Delivery of Entertainment

*Robert E. Freeman*

Are "Immoral, Deceptive, or Scandalous" Trademarks Registrable After *Matal v. Tam*?

*Joanna Y. Chen, Jeffrey G. Sheldon*

What Happens If Inter Partes Review Proceedings Are Found Unconstitutional?

*Katherine B. Sales, Jeffrey G. Sheldon*

The Trump Effect: Practical Drafting Tips for Estate Planners in Uncertain Times

*Robert W. Sheehan, Michael S. Schwartz, Josh Bergman*

Counseling on Cannabinoids: Making Sense of Marijuana and Preemption

*James T. O'Reilly*

Building and Sustaining Client Relationships in the Digital Age

*Andrea L. Colby*



# A Letter from PLI Press

October 25, 2017

This second issue of PLI's quarterly journal continues our effort to provide premium coverage and commentary on new and emerging developments impacting the law and the legal profession. A quick glance at the interest-area headings we've added to the journal's table of contents will give you an idea of the range and variety of topics covered in this Autumn 2017 issue.

Technology plays a prominent role in three of the articles—those on artificial intelligence, drones, and delivery of entertainment—but don't presume you have to be a tech or IT practitioner to benefit from these fascinating discussions, which implicate a diverse range of practice areas, from privacy and data security, to intellectual property, workplace/employment law, contract law, personal injury, and beyond.

Once again, we have included an article by the immigration experts at Fragomen, Del Rey, Bernsen & Loewy, who evaluate the merits and shortcomings of the recently proposed RAISE Act. As immigration reform continues to be a critical and dynamic topic, we expect that future issues of *The Current* will continue to feature at least one article on immigration law developments.

In addition to articles covering developments in the core practice areas of trademark, patent, and tax law, this issue of *The Current* presents an intriguing look at cannabis law and the novel questions practitioners may face with respect to this evolving area of law.

This issue's final article features a topic of importance to all practitioners. "Building Client Relationships in the Digital Age" is an engaging examination of how lawyers communicate with clients and others in the workplace, focusing on the differences between how Millennials and other generations communicate, and on achieving the common goal of successful client relationships whether using phone calls or text messages. This article features guidance and tips on business communications skills that will benefit every attorney, regardless of age or practice area.

As always, we hope you find these articles insightful, interesting, and relevant, and encourage you to contact us at [editor.TheCurrent@pli.edu](mailto:editor.TheCurrent@pli.edu) with your feedback.

**Ellen Siegel**

Vice President, Print and Digital Publishing

**Paul Matsumoto**

Legal Editor

Practising Law Institute  
New York, New York

---

**The Current: The Journal of PLI Press**

Vol. 1, No. 2, Autumn 2017

---

**Vice President, Print and Digital Publishing**

Ellen Siegel

**Editor**

Paul Matsumoto

**Legal Editors**

Carol Benedicto

Kelliann Kavanagh

Jacob Metric

Keith Voelker

Lori Wood

**Publishing Production Manager**

Christine Rivela

**Manager, Publishing Administration**

Stephanie Sica

This work is designed to provide practical and useful information on the subject matter covered. However, it is sold with the understanding that neither the publisher nor the author is engaged in rendering legal, accounting, or other professional services. If legal advice or other expert assistance is required, the services of a competent professional should be sought.

Copyright © 2017 by Practising Law Institute. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of Practising Law Institute.

ISSN: 2573-6906 (print)

ISSN: 2573-6914 (online)

Published quarterly. For information on a free electronic subscription or to purchase additional print copies of *The Current: The Journal of PLI Press*, visit [www.pli.edu/THECURRENT](http://www.pli.edu/THECURRENT).

Original articles for consideration may be submitted in electronic form to *The Current* at [www.pli.edu/CurrentSubmissions](http://www.pli.edu/CurrentSubmissions).

Practising Law Institute

1177 Avenue of the Americas, New York NY 10036, [www.pli.edu](http://www.pli.edu)

# THE CURRENT

## The Journal of PLI Press

---

Volume 1

Autumn 2017

Number 2

---

### ARTICLES

#### IMMIGRATION

**Why the RAISE Act's Points System Won't Fix Immigration**..... 163

Austin T. Fragomen, Jr., Careen Shannon

*Fragomen, Del Rey, Bernsen & Loewy, LLP*

#### TECHNOLOGY

**Artificial Intelligence: Prepare for the Reinvention of Everything**..... 171

Peter Brown

*Peter Brown & Associates PLLC*

Jonathan T. Kaplan

*Kaplan IP Law, PLLC*

#### TECHNOLOGY & AVIATION

**Unmanned Aircraft Systems: The Evolving Legal Landscape in the United States and Europe** ..... 207

Kenneth P. Quinn, Jennifer Trock, Graham C. Keithley, Chris Leuchten

*Baker & McKenzie LLP*

#### TECHNOLOGY & INTELLECTUAL PROPERTY

**New Methods for Delivery of Entertainment** ..... 219

Robert E. Freeman

*Proskauer LLP*

#### TRADEMARK LAW

**Are "Immoral, Deceptive, or Scandalous" Trademarks Registrable After *Matal v. Tam*?** ..... 249

Joanna Y. Chen, Jeffrey G. Sheldon

*Cislo & Thomas LLP*

**PATENT LAW**

**What Happens If Inter Partes Review Proceedings Are Found Unconstitutional? ... 259**

Katherine B. Sales, Jeffery G. Sheldon

*Cislo & Thomas LLP*

**TAX/ESTATES & TRUSTS**

**The Trump Effect: Practical Drafting Tips for Estate Planners in Uncertain Times ... 267**

Robert W. Sheehan, Michael S. Schwartz, Josh Bergman

*Curtis, Mallet-Prevost, Colt & Mosle LLP*

**CANNABIS LAW**

**Counseling on Cannabinoids: Making Sense of Marijuana and Preemption ..... 289**

James T. O'Reilly

*University of Cincinnati College of Medicine*

**EFFECTIVE LAWYERING**

**Building Client Relationships in the Digital Age ..... 295**

Andrea L. Colby

*Pro Se, LLC*

# The Current

## The Journal of PLI Press

---

Vol. 1, No. 2, Autumn 2017

## Why the RAISE Act's Points System Won't Fix Immigration

**Austin T. Fragomen, Jr., Careen Shannon**

*Fragomen, Del Rey, Bernsen & Loewy, LLP*

On August 2, 2017, President Trump and two Republican members of Congress—Senator Tom Cotton (R-AK) and Representative David Perdue (R-GA)—unveiled the Reforming American Immigration for a Strong Economy (RAISE) Act.<sup>1</sup> Along with reducing family-based immigration, limiting refugee admissions, and eliminating the Diversity Visa lottery, the bill would replace the current employment-based immigration system with a points-based system. The bill is being touted as a boon to the U.S. economy because it would refocus U.S. immigration away from family reunification and toward a system that attracts immigrants based on merit, but the likely result if the bill were ever to become law would be the opposite of the drafters' stated intentions.

An immigration law designed to attract the “best and the brightest” immigrants to the United States may sound good in theory. In truth, though, the current statutory scheme governing immigration based on employment is already a merit-based system, since it helps provide qualified foreign workers to employers that have demonstrated that they are unable to find any U.S. workers who are able, willing, qualified, and available to fill actual existing jobs.<sup>2</sup> A points-based system, on the other hand, can end up providing workers who possess skills that are actually not needed in the U.S. economy.

### **The Points-Based Criteria**

Under the new proposal, employer sponsorship would be replaced by a government selection process based on the number of points a person accrues on a 100-point scale. Only those who earn a minimum of 30 points would be eligible to apply for permanent residence based on employment.<sup>3</sup>

The proposed system would award applicants points based on their age, educational level, English-language proficiency, extraordinary achievements, any job offer they may have and the salary associated with such an offer, and the amount of any investment the person may make in the United States.

The system is constructed in such a way that priority would be given to persons holding professional degrees or advanced degrees in STEM fields; investors contributing more than \$1 million and taking an active management role in a new commercial enterprise in the United States; applicants with a U.S. job offer and a salary of 1.5 to 3 times the median household income in the state in which the person would be employed; and applicants with internationally recognized awards such as a Nobel Prize or an Olympic medal.

For example, applicants between the ages of 26 and 30 would earn the most points based on age, and holders of U.S. STEM PhD degrees, or three specified professional degrees—a master’s of business administration (MBA), a doctor of juris-

**A points-based system  
can result in workers  
whose skills are not  
actually needed in the  
U.S. economy.**

prudence (JD), or a doctor of medicine (MD) degree—would earn the most points based on education. No other professional degrees (for example, advanced degrees in pharmacy or nursing) are recognized. Similarly, advanced non-professional degrees at the master's or PhD level only accrue points if they were earned in a STEM field. A person with a PhD in psychology or history, for example, would earn no points for that degree.

The other criteria are similarly narrow. English-language proficiency would be measured by an applicant's score on a recognized standardized proficiency test. Points for extraordinary achievement would be awarded only to Nobel laureates or recipients of comparable recognition in a field of scientific or social scientific study, or to persons who have won an Olympic medal within the eight years preceding application, or who placed first in an international sporting event in which “the majority of the best athletes in an Olympic sport were represented as determined by the Commissioner of U.S. Citizenship and Immigration Services.” Points awarded for a job offer would be based on the compensation the employer is offering.

Finally, persons seeking to immigrate based on investment would be required to invest a minimum of \$1.35 million (for 6 points) and could earn 12 points for an investment of at least \$1.8 million. But among other new requirements, applicants would be required to actively manage the investment as their primary occupation.

## **Existing Points Systems Do Not Work**

The Canadian and Australian points systems to which the bill's sponsors point as models have proven to result in a mismatch between the skills of new immigrants and the needs of the local labor force.<sup>4</sup> Because employers are not involved in selection under the Canadian and Australian points systems, skilled migrants in those countries are often unable to find work at their skill level once they arrive, leading to unemployment or underemployment.<sup>5</sup>

Canada has acknowledged that despite the high level of education of immigrants, the problem of unemployment and underemployment among recent immigrants has grown in recent years.<sup>6</sup> One of the main difficulties for new arrivals is the low rate of recognition of foreign credentials, which is reflected in the large proportion of immigrants with university degrees in jobs with low educational

requirements (such as retail sales clerks, office clerks, cashiers, and taxi drivers). The statistics also reflect significant and sustained income differences between immigrants and the Canadian-born population. Within immigrant groups, average earnings were significantly lower for immigrant workers who could not claim points for having prearranged employment.<sup>7</sup> More recent statistics reflect that these problems persist in Canada.<sup>8</sup> Recent data for Australia reflects that 94% of workers who entered with job offers were employed six months after receiving their visa, compared to 80% of immigrants admitted under the points system, and immigrants with job offers were more likely to work in skilled jobs and earn higher wages than points-tested immigrants.<sup>9</sup> These trends have continued according to the latest government statistics.<sup>10</sup>

The RAISE Act's fundamental flaw is that it removes U.S. employers from the key role of deciding which non-family immigrants should be able to apply for green cards, and turns that decision over to bureaucrats in Washington, D.C. When the current U.S. employment-based immigration system was developed in 1990,<sup>11</sup> Congress sought considerable input from the business community and other stakeholders to ensure that the United States could attract the best and

## **The RAISE Act's fundamental flaw is leaving the decision of which non-family immigrants can apply for green cards to Washington bureaucrats.**

brightest and other highly sought-after migrants.<sup>12</sup> As a result, the current employment-based preference system is far more selective than a points system and is designed to match skills with specific employer needs.

In fact, there are strong reasons for suggesting that the RAISE Act would be less responsive to the employment needs of U.S. employers. The point system in Australia is designed to supplement employer-sponsored immigrants by allowing "independent" immigrants (persons without job offers or those not already

---

working for an Australian employer) the opportunity to immigrate. Similarly, the point system in Canada, “Express Entry,” has been used to attract those without a connection to Canada, but this system strongly favors people currently working with a skilled temporary-visa status in Canada. In contrast, the proposed system under the RAISE Act would altogether replace the current U.S. system based on employer sponsorship and would not give greater weight to work experience in the United States.

Moreover, there is no flexibility under the RAISE Act’s point system, and it would be difficult to add such flexibility under our current political system. The parliamentary systems of Canada and Australia allow for government fixes in a relative quick manner. It is unlikely, however, that Congress would cede authority to set numbers and criteria for immigration to government agencies, and even in the unlikely event this were to occur, there is no evidence to suggest that our agencies would respond to the changing needs of the economy in a timely manner. For example, the U.S. Department of Labor’s Schedule A regulations, which list pre-certified occupations, have not been revised since 2004, and those revisions did not change the list of occupations but only the terms under which current occupations qualify for pre-certification.<sup>13</sup>

## The Real Problem

The real problem with our existing employment-based immigration system is one that the RAISE Act fails to address: too few visa numbers. The U.S. workforce has a shortage of younger workers, to which many U.S. employers—not to mention anyone hoping to rely on Social Security for some or all of their retirement income—can attest.<sup>14</sup> The dramatic reduction of family-based immigration will only exacerbate these demographic challenges.<sup>15</sup> The restrictions on family immigration themselves are likely to deter the brightest and best foreign nationals from permanently migrating to the United States. After all, employment-based migration involves families, too.

The proponents of the RAISE Act have stated that the purpose of the bill is to reduce legal immigration levels.<sup>16</sup> The RAISE Act would eliminate several family immigration categories, cap refugee admissions at 50,000 annually, and reduce legal immigration by 50% over ten years. Reducing legal immigration would have a major adverse impact on the U.S. economy since immigrants constitute a significant portion of the labor force growth in the United States.

## Conclusion

The biggest immigration-related problem facing the U.S. economy is filling jobs that irregular migrants currently hold. These jobs are generally low-skilled and low-salaried positions. Under the RAISE Act, however, persons with less than a bachelor's degree and with a job offer with a salary less than 1.5 times the median household income in the state where the person would work would not be eligible to immigrate based on employment.

Either we must have a broad-based nonimmigrant program for essential workers, or we must fill these jobs with U.S. workers. The RAISE Act does nothing to ensure that either of these solutions comes to pass. Unfortunately, there really are some jobs that U.S. workers simply do not want to do. And these are not jobs that require advanced degrees, fluency in English, or internationally recognized awards.

Attracting only the best and the brightest immigrants sounds great until you examine more closely what it actually means. A points-based immigration system is not the right approach to reforming the U.S. immigration system. It would do more harm than good.

---

Austin T. Fragomen, Jr. and Careen Shannon are co-authors (with Daniel Montalvo) of PLI's [Fragomen on Immigration Fundamentals: A Guide to Law and Practice \(5th ed.\)](#).

---

## NOTES

1. Reforming American Immigration for a Strong Economy (RAISE) Act, S. 354 (Feb. 13, 2017).
2. INA § 212(a)(5)(A)(i), 8 U.S.C. § 1182(a)(5)(A)(i); 20 C.F.R. § 656.10(b)(2).
3. S. 354 § 5(d).
4. FRAGOMEN GLOBAL, GLOBAL BUSINESS IMMIGRATION HANDBOOK chs. 1, 4 (Thompson Reuters 2017) (for a detailed description of the Canadian and Australian points-based systems).
5. See Demetrios Papademetriou & Madeleine Sumption, *Rethinking Points Sys. & Employer-Selected Immigration*, MIGRATION POLICY INST. (June 2011), [www.migrationpolicy.org/research/rethinking-points-systems-and-employer-selected-immigration](http://www.migrationpolicy.org/research/rethinking-points-systems-and-employer-selected-immigration); Anna Mehler Paperny, *Unemployment's up for Canada's most educated immigrants*, GLOBAL NEWS (July 30, 2014), <http://globalnews.ca/news/1480102/unemployments-up-for-canadas-most-educated-immigrants/>; Jacqueline Williams, *Trump Looks to Australia in Overhauling Immigration System*, N.Y. TIMES (Aug. 3, 2017), [www.nytimes.com/2017/08/03/world/australia/trump-immigration-merit-based-points.html?\\_r=0](http://www.nytimes.com/2017/08/03/world/australia/trump-immigration-merit-based-points.html?_r=0); ECONOMIST, *Why Points-Based Immigration Systems Don't Work* (July 12, 2016), [www.economist.com/blogs/economist-explains/2016/07/economist-explains-9](http://www.economist.com/blogs/economist-explains/2016/07/economist-explains-9).
6. Diane Galarneau & René Morissette, *Immigrants' Education and Required Job Skills* (Statistics Canada, Dec. 2008), [www.statcan.gc.ca/pub/75-001-x/2008112/pdf/10766-eng.pdf](http://www.statcan.gc.ca/pub/75-001-x/2008112/pdf/10766-eng.pdf).
7. *Evaluation of the Federal Skilled Worker Program*, GOV'T OF CANADA (Aug. 2010), [www.cic.gc.ca/English/resources/evaluation/fswp/index.asp](http://www.cic.gc.ca/English/resources/evaluation/fswp/index.asp).
8. See *Analysis of the Canadian Immigrant Labour Market, 2008 to 2011*, STATISTICS CANADA (Nov. 27, 2015), [www.statcan.gc.ca/pub/71-606-x/2012006/part-partie1-eng.htm](http://www.statcan.gc.ca/pub/71-606-x/2012006/part-partie1-eng.htm).
9. See AUSTRALIAN GOV'T, DEP'T OF IMMIGRATION AND CITIZENSHIP, *ADDITIONAL RESULTS FROM THE CONTINUOUS SURVEY OF AUSTRALIA'S MIGRANTS* (Oct. 2009), [www.border.gov.au/ReportsandPublications/Documents/research/csam-additional-results.pdf](http://www.border.gov.au/ReportsandPublications/Documents/research/csam-additional-results.pdf).
10. See AUSTRALIAN GOV'T, DEP'T OF IMMIGRATION & BORDER PROT., *CONTINUOUS SURVEY OF AUSTRALIA'S MIGRANTS, COHORT 3 REPORT—INTRODUCTORY SURVEY* (2015).
11. Immigration Act of 1990, Pub. L. No. 101-649, 104 Stat. 4978 (Nov. 29, 1990).
12. See H.R. REP. NO. 101-723 (Sept. 19, 1990); S. REP. NO. 101-55 (June 19, 1989). Both reports are available on Westlaw.
13. See 69 Fed. Reg. 77,326 (Dec. 27, 2004).
14. *Changing Patterns in U.S. Immigration and Population*, PEW CHARITABLE TRUSTS (Dec. 18, 2014), [www.pewtrusts.org/en/research-and-analysis/issue-briefs/2014/12/changing-patterns-in-us-immigration-and-population](http://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2014/12/changing-patterns-in-us-immigration-and-population).
15. Rick Newman, *Why a Falling Birth Rate Is a Big Problem*, U.S. NEWS & WORLD REP. (Dec. 3, 2012), [www.usnews.com/news/blogs/rick-newman/2012/12/03/why-a-falling-birth-rate-is-a-big-problem](http://www.usnews.com/news/blogs/rick-newman/2012/12/03/why-a-falling-birth-rate-is-a-big-problem); Rosamond Hutt, *Japan's Population Is Shrinking: What Does It Mean for the Economy?*, WORLD ECON. FORUM (Feb. 26, 2016), [www.weforum.org/agen](http://www.weforum.org/agen)

- da/2016/02/japans-population-is-shrinking-what-does-it-mean-for-the-economy/; Liz Alderman, *After Economic Crisis, Low Birthrates Challenge Southern Europe*, N.Y. TIMES (Apr. 16, 2017), [www.nytimes.com/2017/04/16/business/fewer-children-in-greece-may-add-to-its-financial-crisis.html?action=click&contentCollection=Health&module=RelatedCoverage&region=EndOfArticle&pgtype=article](http://www.nytimes.com/2017/04/16/business/fewer-children-in-greece-may-add-to-its-financial-crisis.html?action=click&contentCollection=Health&module=RelatedCoverage&region=EndOfArticle&pgtype=article).
16. Press Release, Sen. Tom Cotton, Cotton and Perdue Introduce the Reforming American Immigration for a Strong Economy Act (Aug. 2, 2017), [www.cotton.senate.gov/?p=press\\_release&id=765](http://www.cotton.senate.gov/?p=press_release&id=765).

# The Current

## The Journal of PLI Press

---

Vol. 1, No. 2, Autumn 2017

## Artificial Intelligence: Prepare for the Reinvention of Everything

**Peter Brown**

*Peter Brown & Associates PLLC*

**Jonathan T. Kaplan**

*Kaplan IP Law, PLLC*

DAVE BOWMAN: Open the pod bay doors, HAL.  
HAL 9000: I'm sorry, Dave. I'm afraid I can't do that.

*2001: A Space Odyssey* (1968)

### Introduction

Hollywood loves to tell us fanciful, futuristic stories about artificial intelligence—“AI”—with the notion of runaway robots threatening humans as a favorite theme: In the film *2001: A Space Odyssey*, the spaceship's computer “HAL”

---

locks out Dave—the only remaining member of a crew that had discovered errors in HAL’s programming and had tried to shut it down. In the dystopian *Terminator* movie series, an artificial intelligence defense system unexpectedly becomes self-aware and then decides to take control of the world from its human creators, by, among other things, producing anthropomorphic time-travelling killer robots programmed to wipe out the last vestiges of humanity.

In the real world, AI technology is being developed for practical use in ways that benefit rather than threaten humanity. For example, mobile mechanical systems—*i.e.*, mobile robots—are being developed to assist in caring for elderly humans, and autonomous vehicle technology already in use has been shown to reduce accidents. AI is also in current use in less obvious ways that touch the lives of ordinary citizens on a daily basis. Internet search engines such as Google and Bing use artificial intelligence to improve their search results; Amazon and Apple incorporate AI features into their user interfaces and communications technologies in such product offerings as the Siri personal assistant<sup>1</sup> and the Amazon Echo.<sup>2</sup> With the help of IBM’s Watson technology, doctors are using AI to improve medical outcomes.<sup>3</sup>

In these iterations, artificial intelligence technology is being reframed by the terms “cognitive computing” and “augmented intelligence” to describe a group of technologies that combine or interact to assist humans in the performance of many different tasks. These and other use cases for artificial intelligence will inevitably challenge social norms as well as laws and regulations, raising new issues for legislators, lawyers, scientists, and the public.

## Defining Artificial Intelligence

An artificial intelligence is not a sentient agent or a conscience; it is simply a man-made system that behaves intelligently. Authors and computer science professors David L. Poole and Alan K. Mackworth define it as follows:

Artificial intelligence, or AI, is the field that studies the synthesis and analysis of computational agents that act intelligently. Let us examine each part of this definition.

\* \* \*

We are interested in what an agent does; that is, how it *acts*. We judge an agent by its actions.

An agent acts *intelligently* when

- what it does is appropriate for its circumstances and its goals,
- it is flexible to changing environments and changing goals,
- it learns from experience, and
- it makes appropriate choices given its perceptual and computational limitations. An agent typically cannot observe the state of the world directly; it has only a finite memory and it does not have unlimited time to act.

A *computational* agent is an agent whose decisions about its actions can be explained in terms of computation. That is, the decision can be broken down into primitive operation that can be implemented in a physical device. This computation can take many forms. In humans this computation is carried out in “wetware”; in computers it is carried out in “hardware.”<sup>4</sup>

It is worth noting that the term “artificial” is only being used to mean something that is made by people, not to indicate that the “intelligence” achieved is, in any sense, “fake.”

## Intelligent Machines, a/k/a “Robots”

One popular conception of an AI system is the “robot.” In common parlance, the term “robot” may refer to a mechanical device that performs the same action reliably and repetitively, like a child’s wind-up toy that moves its mechanical legs and arms until its spring winds down. Sophisticated machines with pre-programmed features are also referred to either formally or casually as robots, because they reliably repeat the same tasks. This includes most kinds of industrial robots utilized in manufacturing, including those referred to as “robot arms,” reflecting the anthropomorphic aspect of the term. Even vehicles that are solely tele-operated and remain under the direct control of their human operators, such as some unmanned aerial vehicles (UAVs, or “drones”) and bomb disposal units, are often referred to as robots, even though they lack features that would enable them to act autonomously.

Even these limited-function machines that give only the appearance of autonomy have prompted controversy and legislative response. For example, robot arms used in manufacturing prompted OSHA regulations aimed at worker safety;<sup>5</sup> the prospect of widespread commercial and consumer use of remote-controlled drones has prompted action by the Federal Aviation Administration.<sup>6</sup> The recent ad hoc use of a remotely operated bomb disposal unit (referred to by police as its “bomb robot”) to deliver an explosive that killed an armed and dangerous gunman prompted an ethical debate and the introduction of legislation defining the permissible use of weaponized drones by domestic law enforcement agencies.<sup>7</sup> Use of remote-controlled drones is also a subject of privacy and Fourth Amendment concerns.<sup>8</sup>

Over time, the term “robot” has gotten an upgrade; it has come to encompass machines and systems that not only are highly sophisticated in their functional abilities, but also are capable of acting flexibly and capably and with a degree of autonomy. Recent semiconductor advances have dramatically lowered the cost and electrical power consumption of powerful processors; these cost reductions have lowered the monetary cost, as well as physical space requirements, of incorporating machine learning and other kinds of adaptive software into mechanical devices.

The effect of cost reduction and increased power has been felt significantly in the development of mobile robots. It has become possible to build a mobile robot that includes state-of-the-art machine learning, computer vision, and autonomy technology at a commercially viable price. Autonomous and semi-autonomous mobile robots are able to operate outside the factory, in complex and challenging real-world environments that require the functional flexibility and advanced behaviors that only sophisticated software can provide.

### **Personal Care Robots**

Japan has long been at the forefront of robotic technology development. Japanese auto manufacturers were among the very first companies to enthusiastically introduce robot-arm technologies in their factories in the 1950s; on the consumer side, tech giant Sony introduced a programmable toy dog, the Aibo, in 1999.<sup>9</sup> More recently, Japanese firms have been developing robotic technology aimed at providing assistance to the country’s aging population in the face of a looming shortage of human caregivers.<sup>10</sup> Toyota has been working on a “Partner Robot Family,” a line of “personal assist robots” to provide physical assistance to

---

humans. Toyota describes them as “agile, warm, kind and also intelligent enough to think for themselves, and further skillfully operate a variety of devices in the areas of personal assistance care for the elderly, manufacturing, and mobility.”<sup>11</sup> The Partner Robot Family includes a Walk Assist Robot, Care Assist Robot, the “Robina” robot that can “think and move for itself, carry and use objects, and even converse with people” and the “Humanoid” robot that is able to move its whole body.

Other efforts to provide care for the elderly population focus on robots that emulate personal interactions between humans. In 2015, SoftBank Robotics Corp. introduced Pepper, a humanoid “emotional support robot” that is designed to recognize human tones of voice and facial expressions through an array of cameras, touch sensors and accelerometers, as well as AI software technologies.<sup>12</sup>

### **Out of the AI Lab and onto the Road—Autonomous Vehicles**

Consumer vehicles with autonomous features have rolled out of laboratories and automobile factories and onto the roads in the last several years. Efforts to develop fully autonomous vehicles incorporating artificial intelligence go back decades, but they received a boost in 2003 when the Defense Advanced Research Projects Agency (DARPA), an agency of the U.S. Department of Defense, issued the first of several “challenges,” with monetary prizes for top-placing teams, to spur the development of autonomous ground vehicles.<sup>13</sup> While no one won the first DARPA Grand Challenge, subsequent iterations of the contest were instrumental in encouraging subsequent efforts that led to the first tests of self-driving automobile prototypes on public streets.

The Google Self-Driving Car project was in “stealth” mode until 2010, when the appearance of unusual vehicles on California streets sparked media attention.<sup>14</sup> While there are as yet no Google vehicles being marketed to consumers, Google’s renamed “Waymo Project”<sup>15</sup> is currently operating an “Early Rider” public trial project in Phoenix, Arizona. In contrast to the research project status of Google’s Waymo Project, the Tesla Model S autopilot system that assists motor vehicle operators was introduced into the consumer marketplace in 2012.<sup>16</sup>

Both Google and Tesla have reported accidents involving their vehicles. The first known fatal accident involving the Tesla Model S was reported in March 2016, when a vehicle with the autopilot engaged failed to stop before crashing into a tractor-trailer making a turn in front of the vehicle.<sup>17</sup> In a statement on its

blog following the accident, Tesla reiterated that purchasers of the vehicle are instructed to keep their hands on the wheel when the autopilot is engaged.<sup>18</sup> On the other hand, the marketing of the product as an “autopilot” suggests otherwise. The National Highway Traffic Safety Administration (NHTSA)<sup>19</sup> launched an investigation of the accident. The agency concluded that it was not caused by

## **There will no doubt be accidents involving AI technology, even as the technology improves safety overall.**

a malfunction of the Tesla technology, but rather by a known limitation in the abilities of its AI features. The accident presented a situation (a “crossing path collision”) that the Tesla autopilot system was not designed to handle. The NHTSA report reiterated the position taken by Tesla that a Tesla vehicle with the autopilot engaged is not a fully self-driving vehicle; it requires the “continual and full attention of the driver to monitor the traffic environment and be prepared to take action to avoid crashes.” The report was viewed as a boost both for Tesla and for the benefits of AI features in automobiles in general, because NHTSA went beyond simply exonerating Tesla’s technology. The agency also cited statistics showing that the crash rate for Tesla vehicles dropped 40% after its autosteer technology was installed.<sup>20</sup>

The Tesla accident demonstrates one of the challenges for future deployment of AI technologies in autonomous vehicles as well as other “mission-critical” applications. There is no doubt that there will be accidents involving the use of AI technology, even as the technology improves safety overall. Whether the public will accept the tradeoff remains to be seen.<sup>21</sup>

### **Artificial Intelligence—Under the Hood**

How is a computer system able to mimic a human intelligence? AI systems in use or on the horizon utilize a number of software and related hardware technol-

---

ogies that do not, of themselves, constitute a working AI system. These technologies interact and overlap to provide AI capability, depending upon the manner in which they are brought to bear on a problem.

## **“Big Data”**

Extremely large collections of data form the knowledge base of many AI systems. The term “Big Data,” which came into use a few years ago, refers to large sets of structured and unstructured data and to the software and hardware technologies that enable effective use of the information they contain.<sup>22</sup> In most applications, these large data sets are accessed remotely, making cloud computing technologies<sup>23</sup> an important aspect of Big Data systems. Big Data technology in conjunction with AI is a particularly powerful combination. Among many other use cases, it helps retailers target customers by examining their past sales data; it helps sports teams track the performance of their athletes; and it can be brought to bear on issues of practical importance to attorneys—for example, analyzing large databases of text documents such as statutes, legal opinions, and regulations more quickly and effectively.<sup>24</sup> It also enables the National Security Agency to sift through raw data on millions of phone calls to target possible terrorist activity.<sup>25</sup>

## **Machine Learning, Artificial Neural Networks, and Deep Learning**

One of the key aspects of an intelligent system is the ability to learn from experience. “Machine learning” is a term that refers to algorithms that can improve with the application of more data. Machine learning can be achieved in many different ways.

“Artificial neural network” is a term that refers to networks of simple interconnected units that emulate the neural structure of the human brain (not literally, but conceptually).<sup>26</sup> Neural networks excel at the unguided discovery of patterns, a quality that is very useful for such tasks as image recognition, prediction of future trends, and audio signal processing. Neural networks learn to identify objects by a series of what a layperson might describe as “guesstimates”:

Neural networks consist of simulated neurons known as units that are arranged in layers. Like real neurons, every unit is connected to several others in its neighbouring layers, and each connection is weighted. A unit will only “fire”, in other words send a signal to the next layer, when the sum of the weighted signals from the previous layer exceeds some threshold. The

idea is that certain groups of data sets at the input generate a specific output. In other words, those data sets are recognised as being examples of a particular “object”—be it a cat, a chair or a person’s face.

Networks are trained by being fed multiple examples of each object and seeing how close they get to producing the right output. The difference between the right answer and the answer they actually produce is then used to tune the weights so that the next time around they get a bit closer. In this way networks “learn” to recognise different objects. When a network is then set loose on fresh unlabelled data it should be able to correctly identify the object or objects within.<sup>27</sup>

“Deep learning” is a specific kind of machine learning:

Deep Learning is a special type of Machine Learning that involves a deeper level of automation. One of the great challenges of Machine Learning is feature extraction where the programmer needs to tell the algorithm what kinds of things it should be looking for, in order to make a decision and just feeding the algorithm with raw data is rarely effective. Feature extraction places a huge burden on the programmer especially in complex problems, such as object recognition. The algorithm’s effectiveness relies heavily on the skill of the programmer. Deep Learning models address this problem as they are capable of learning to focus on the right features by themselves and requires little guidance from the programmer, making the analysis better than what humans can do. Deep Learning models have been very effective in complex tasks, such as sentiment analysis and computer vision.<sup>28</sup>

Deep learning works very well in complex tasks such as image and speech recognition. But the technique is very computationally intensive, and deep learning systems require a great deal of data to train. Another issue is “explainability,” or the “black box problem.” The ability of deep learning systems to learn in an “unsupervised” manner (that is, not dependent upon a programmer) can make it difficult to understand and describe the process that the system is using to make classifications and accomplish tasks.<sup>29</sup> This creates practical difficulties (how do you fix such a system or assign responsibility if it fails or does harm?) as well as philosophical and societal issues (see further discussion below at “Transparency and Control”).

IBM's Deep Blue and Google's AlphaGo system have used a combination of machine learning and a knowledge base in order to best human competitors in the games Chess and Go.<sup>30</sup> IBM's Watson used an extensive knowledge base combined with machine learning methods, including neural networks.<sup>31</sup> In each case, the system relied on being able to quickly evaluate potential answers or moves and then select the best one, according to some metric. IBM recently leveraged its deep learning expertise to achieve a milestone in human speech recognition, a reduction in the word recognition error rate to 5.5%, which approaches the human error rate.<sup>32</sup>

## Natural Language Processing

Natural language processing (NLP) refers to the ability of a computer system to understand human speech in a language such as English, in contrast to understanding an artificial computer language such as that used to create a computer program.<sup>33</sup> NLP enables a computer system to process text with useful understanding of features such as grammar, structure, context, and meaning.<sup>34</sup> On a deeper level, NLP enables a computer system to interact with humans in a more "natural" way, by receiving human language input (such as directly receiving human speech), and returning output in the form of human language.

## Image Recognition

A human can easily recognize and distinguish the content of digital images, but image recognition is a difficult task for a computer when one is trying to program for specific features. Image recognition is a critical feature for the practical deployment of many AI systems.

For example, self-driving automobile technology must learn to "understand" its visual environment in order to successfully navigate such varied situations as city streets and country roads. Similarly, personal care robots must learn to distinguish between individual humans and recognize the various body parts of humans, and navigate in ordinary human space. To achieve widespread practical utility, AI systems must be able to process and understand both the text and images of documents.

Advances in image recognition have benefited from the significant growth in computational power available to researchers, the collections of massive image databases with object labels (a/k/a training data sets), and advances in general

machine learning tools such as deep learning and neural networks. In 2015, a team from Microsoft, using “deep neural network” technology, achieved a significant milestone when its image recognition technology performed an image classification challenge with an error rate of only 3.6%, as compared to a human error rate of 5.1%.<sup>35</sup>

Facial recognition technology, a subset of image recognition, is already in active use. To the great annoyance of some users, social media sites scan photos uploaded by users to detect human faces and offer to identify them by name.<sup>36</sup> Facial recognition software is in current use by law enforcement authorities to identify suspects<sup>37</sup> and soon will be used by the Department of Homeland Security to aid in verifying identity and tracking potential wrongdoers.<sup>38</sup>

### The AI Chip

AI technologies are particularly computation-intensive and can stretch the resources of off-the-shelf processors. An “AI chip” is a processor that is optimized to process the type of data upon which AI systems rely, such as data from image sensors used for facial recognition or vision processing in automobiles. Google has introduced a custom chip that is maximized for deep learning tasks,<sup>39</sup> and Apple is reportedly working on an AI chip for smartphones.<sup>40</sup> One goal behind Apple’s AI chip is to improve user privacy by enabling local processing of user data, rather than passing the data through public networks in order to utilize the processing power of the cloud. This is important, for example, with intelligent assistants such as Siri.<sup>41</sup>

### Cognitive Computing and Augmented Intelligence

“Cognitive computing” and the related term “augmented intelligence” refer to the application of AI technologies to assist humans in the solution of real world problems. The term “cognitive computing” reputedly was coined by researchers who worked on the IBM Watson project,<sup>42</sup> and IBM has continued to expand the use of the term:<sup>43</sup>

Cognitive computing refers to systems that learn at scale, reason with purpose, and interact with humans naturally. Rather than being explicitly programmed, these systems learn and reason from their interactions with us and from their experiences with their environment. They are made possible by advances in a number of scientific fields over the past half-century and

are different in important ways from the information systems that preceded them. Those systems have been deterministic; cognitive systems are probabilistic. They generate not just answers to numerical problems, but hypotheses, reasoned arguments, and recommendations about more complex—and meaningful—bodies of data.

What's more, cognitive systems can make sense of the 80% of the world's data that computer scientists call "unstructured." This enables them to keep pace with the volume, complexity, and unpredictability of information and systems in the modern world.

None of this involves either sentience or autonomy on the part of machines. Rather, it consists of augmenting the human ability to understand—and act upon—the complex systems of our society.

## IBM's Watson—The Cognitive Computing Game Show Star

In 2011, IBM's Watson supercomputer famously beat human contestants in the TV game show *Jeopardy!*<sup>44</sup> The success of IBM's Watson supercomputer was a watershed moment in the public consciousness concerning advances in artificial intelligence. Watson's answers to the Jeopardy questions were based upon a customized knowledge base containing over 200 million pages of information that was accessed using such Big Data technologies as IBM's proprietary DeepQA software and hardware and open-source Apache Hadoop software for distributed computing.<sup>45</sup> The Watson system employed other AI technologies such as Natural Language Processing and Neural Networks to understand and process the answers to the Jeopardy questions.

Beating human players at board games or image classification may seem like trivial functions in themselves, but the underlying skills demonstrated by these systems are critical to the practical use of artificial intelligence systems. IBM's Watson has graduated from its Jeopardy win to become a much more general-purpose online platform for analyzing a customer's unstructured data and answering real-world questions.<sup>46</sup> This was not a happy accident, but a deliberate plan. IBM moved quickly following the Jeopardy win to promote Watson in fields where huge datasets are common, such as healthcare and the life sciences. IBM's Watson Health unit is currently assisting physicians making medical diagnoses. IBM's Watson technology is also offered as a suite of specific products, providing such capabilities as customized data analysis, chatbots, and virtual agents.<sup>47</sup>

## The Challenge of Artificial Intelligence

Robots and AI systems undoubtedly are bringing great benefit to society and are poised to do much more, but drawbacks and potential issues are being voiced.

**“The development of full artificial intelligence could spell the end of the human race.”**

**— *Stephen Hawking***

## The Three Laws of Robotics<sup>48</sup> May Not Be Enough

Not everyone involved in bringing artificial intelligence out of the lab and into the wider environment paints a rosy picture of the world that the technology will produce. Prominent figures in the technology world such as Bill Gates and Elon Musk have notably expressed concerns that AI may have the capacity to become “superintelligent” and get too smart for humans to control.<sup>49</sup> Musk even compared the risk of developing superintelligent AI to the risk of nuclear weapons.<sup>50</sup> Professor Stephen Hawking subscribes to a similar doomsday scenario: “The development of full artificial intelligence could spell the end of the human race.”<sup>51</sup>

In the EU, the potential safety and other issues raised by the use of robots and artificial intelligence is being addressed broadly. The European Union Parliament recently adopted a report calling for the adoption of “Civil Law Rules on Robotics,” which would establish a European Agency for Robotics and Artificial Intelligence. The proposed agency would be tasked with addressing the safety issues posed by AI use, among many other issues.<sup>52</sup> Among the controversial aspects of the EU report in its draft form was the suggestion that certain AI systems be given legal status, a form of “personhood,” to clarify issues of legal responsibility and liability for damages.<sup>53</sup> This particular proposal did not make it into the final report, but it is not so barking mad as it was portrayed in some headlines.<sup>54</sup> Consider that in the United States, the Supreme Court has afforded corporations the same rights as individuals in the area of campaign finance, among others.<sup>55</sup>

---

## Transparency and Control

One issue with AI technology is the “black box problem,” described above (see the discussion of deep learning). If humans cannot truly understand or describe how a system works, it is difficult to trust—or perhaps more importantly, certify—that it is operating in an ethically and legally appropriate manner. This is a familiar issue in any situation in which a critical process is controlled by a proprietary software algorithm.<sup>56</sup> For example, journalists investigating the use of risk assessment software systems used in the criminal justice system claim that the systems are inaccurate and racially biased. The validity of these claims, which are denied by the software vendors, is difficult to evaluate without access to the underlying proprietary algorithms upon which the systems rely.<sup>57</sup> A March 2017 congressional hearing on oversight of law enforcement use of facial recognition technology explored these issues.<sup>58</sup> The problem becomes more difficult if even the creators of an AI system cannot understand or describe how it works.<sup>59</sup> Recently, Elon Musk and Google teamed up to work on the “black box problem” and related concerns about the development of “superintelligent” AI systems that cannot be controlled by humans.<sup>60</sup>

Similar concerns have been raised about potential bias in the data relied upon by machine learning systems, the use of which may re-amplify underlying bias in the data sources.<sup>61</sup> Amazon came under criticism recently when a report showed that its Amazon Prime same-day free delivery service excluded minority neighborhoods in major cities; critics claim that the proprietary algorithm the company used to determine the service areas utilized racially biased data.<sup>62</sup>

A related issue of control and oversight of intelligent systems is their potential susceptibility to hacking, which may be overt or covert. Twitter users gave Microsoft a lesson in overt AI hacking when it taught the company’s experimental AI chatbot to tweet racist, sexist, and otherwise highly offensive posts for which the company later apologized.<sup>63</sup> Covert hacking of AI systems involves understanding and subverting the system’s learning features. The risk of such attacks is particularly acute where an AI system is engaged in “adversarial” settings such as spam filtering and malware detection.<sup>64</sup>

## Privacy

Privacy risks are a recurring theme in discussions of new and improving digital technologies, and AI is no exception. Over the past several decades, digitization

---

of government records, digital commerce, mobile communications, and social media have all generated enormous databases of information about individuals, creating well-recognized risks to personal privacy. With the ability of AI systems to mine those databases and generate new insights into individual interests, behaviors, and interactions, the risks to personal privacy have grown exponentially.

In 2010, the U.S. Court of Appeals for the District of Columbia issued an opinion that acknowledges the privacy risks involved in accumulating a database of information about an individual, even where each item in the database, if considered separately, is a matter of public knowledge.<sup>65</sup> In *United States v. Maynard*, the court concluded that short-term GPS tracking of a drug trafficking suspect might

## **AI technology may be particularly adept at re-identifying individuals in data that had otherwise been anonymized.**

not require a warrant, but such tracking sustained over a month required a warrant. The court reasoned that the warrant requirement was triggered because the accumulation of information about the suspect's movements over time revealed more than any of the individual pieces of data that were collected.<sup>66</sup>

Although the U.S. Supreme Court affirmed the ruling in *Maynard* on different grounds,<sup>67</sup> the Justices acknowledged the risks to personal privacy involved in the digital capture and accumulation of data. Justice Sotomayor's concurring opinion suggested that the principle that an individual has no expectation of privacy in information voluntarily disclosed might need to be reconsidered.<sup>68</sup>

This approach is ill suited to the digital age, in which people reveal a great deal of information about themselves to third parties in the course of carrying out mundane tasks. People disclose the phone numbers that they dial

or text to their cellular providers; the URLs that they visit and the e-mail addresses with which they correspond to their Internet service providers; and the books, groceries, and medications they purchase to online retailers.

Justice Sotomayor's concurring opinion, like the lower court ruling, implicitly recognizes that the accumulation of information about citizens is a serious risk to privacy.

The ability of AI systems to mine databases containing personal information raises these risks exponentially, because AI technology can extract revealing insights that are not otherwise available through existing technologies. When considered in the context of improving medical diagnoses, this capacity of AI is a good thing: processing masses of information about medical outcomes of cancer patients may yield a life-saving diagnosis for a single patient. But the same data-crunching capacity of AI systems could potentially be used to the detriment of an individual, for example, by an insurance company in making decisions about coverage, or by an employer to deny or terminate employment. AI technology may be particularly adept at re-identifying individuals in data that had otherwise been anonymized.<sup>69</sup>

## Business Ethics

Tech companies are paying attention to these issues and to the broader implications of AI technology and seeking to get ahead of the social and legal issues it poses. In 2016, IBM, Microsoft, Amazon, and Google's DeepMind,<sup>70</sup> as well as other founding partners, established the "Partnership on AI." The partnership is a nonprofit organization with a broad mandate to "study and formulate best practices on AI technologies, to advance the public's understanding of AI, and to serve as an open platform for discussion and engagement about AI and its influences on people and society."<sup>71</sup> The partnership has developed a set of "thematic pillars" by which to focus its efforts. These thematic pillars reference practical, social, and legal issues implicated by AI concerning safety, potential bias in the data underlying AI applications, the prospect of disruption of labor markets, and the potential for AI as a tool for manipulating public opinion.

The Partnership on AI is not the only corporate effort aimed at dealing with the broad implications of AI technology; Google's DeepMind created an internal artificial intelligence ethics board in 2014, although little has been shared publicly

about its operation or agenda.<sup>72</sup> A number of other companies in the AI space have similarly created ethics boards.<sup>73</sup>

## AI in the Workplace

The issues presented by the use of AI in the workplace are, in many respects, no different from the issues presented by other new technologies. Changes in the manner in which work is accomplished, restructuring of job responsibilities and job titles, adjustment of compensation, and layoffs may all trigger obligations under labor contracts and more generally applicable anti-discrimination laws.

## Health and Safety

As noted above, there are long-standing OSHA regulations that apply to the use of robot arms on a factory floor,<sup>74</sup> but there are no regulations in the United States that apply specifically to the use of AI technology in the workplace.

## Worker Displacement

Automation has been replacing human workers in factories for a long time, in the United States and internationally. The first robotic device was introduced into a General Motors assembly line in 1961 to perform a task dangerous to humans.<sup>75</sup> Robotic arm technology was quickly adopted by automobile manufacturers around the world, enabling them to make better cars with fewer defects and using fewer workers. The same phenomenon has repeated itself in other areas of manufacturing. Robotic manufacturing technology has been refined and its flexibility increased; it is taking over production runs requiring smaller volumes, greater sophistication, or both. A 2015 academic study found that of the loss of U.S. factory jobs from 1990 to 2010, 88% were due to reductions in the need for human labor through increases in productivity. This increase in productivity was driven, at least in part, by automation and the use of robotic technology.<sup>76</sup>

**There are no regulations in the United States that apply specifically to the use of AI technology in the workplace.**

Disruption in the workplace caused by technological change is expected to continue. A case in point involves imaging giant Kodak, which once employed over 100,000 workers and enjoyed annual revenues in the billions.<sup>77</sup> As consumers embraced digital cameras and web-connected smartphones instead of film technology, the company declined into bankruptcy in 2012.<sup>78</sup> In the same year, social media giant Facebook acquired two-year-old image-sharing service Instagram for \$1 billion.<sup>79</sup> At the time, Instagram had fewer than twenty employees. Since the acquisition, Instagram's employees have increased significantly to about 450, but that number is still tiny for a service that has 600 million daily users sharing images.<sup>80</sup> The Kodak/Instagram story has been cited as an object lesson on the effect that AI technologies may have in the workplace.<sup>81</sup>

It is difficult to predict exactly which jobs will be replaced by AI technology. There are many predictions and examples, with low-skilled workers most often cited as being in jeopardy,<sup>82</sup> but highly skilled workers may also be at risk. For example, the Associated Press has been using software to generate routine sports and financial news items since 2014,<sup>83</sup> and money management firm BlackRock announced recently that it was replacing 13% of its money managers with AI technology that can follow market indicators.<sup>84</sup> A report issued by the White House in the waning days of the Obama administration struck a cautious note concerning predictions about the effect of “AI-driven automation” on jobs:

Today, it may be challenging to predict exactly which jobs will be most immediately affected by AI-driven automation. Because AI is not a single technology, but rather a collection of technologies that are applied to specific tasks, the effects of AI will be felt unevenly through the economy. Some work tasks will be more easily automated than others, and some jobs will be affected more than others.<sup>85</sup>

## Proposals for Universal Basic Income

Concerns that AI systems will cause mass displacement of workers have prompted proposals for “Universal Basic Income,” or in some iterations “Unconditional Basic Income.” UBI is a system under which each citizen, regardless of income or need, would receive a monthly stipend. UBI proposals primarily are addressed to the alleviation of poverty, but they are being promoted by prominent figures in the technology industry as a response to worker displacement by AI technology. Among the proponents of UBI is Elon Musk, who has said that he

could see no alternative to the scheme if predictions concerning job loss due to automation were to bear out.<sup>86</sup> Some view UBI simply as an extension of current social safety net programs such as Social Security, Medicare, and welfare.<sup>87</sup>

UBI proposals have gained significant traction in the European Union, where a proposal for consideration of a UBI system was included in the draft form of the report on Artificial Intelligence and Robotics.<sup>88</sup> Pilot programs are being conducted in Finland and the Netherlands, and legislative proposals have been made in France, Switzerland, and the United Kingdom.<sup>89</sup> A recent survey reported widespread public support in the EU for UBI.<sup>90</sup> Predictably, however, not everyone is on board for what is viewed as a new or vastly expanded social welfare program. In February 2017, when the EU Parliament voted favorably on non-binding rules governing artificial intelligence and advanced robots, it rejected the proposal for UBI contained in the draft report. In the discussion of labor issues in the adopted text, reference is made to prior studies that have predicted a looming shortage of information technology specialists by 2020, as well as the need for education of workers in “digital competence.”<sup>91</sup> UBI proposals are also being challenged by skeptics in the EU and elsewhere who believe that displacement of workers in the digital economy will not have the catastrophic effects that have been predicted.<sup>92</sup>

## Layoff Rules

Legal issues will arise regardless of which categories of workers lose their jobs to AI or any other innovative technology. When a company undertakes a reduction in force for any reason, various laws and legal obligations may be triggered. Under federal law, the Worker Adjustment and Retraining (WARN) Act applies to employers with 100 employees or more. In general, the WARN Act requires employers to notify employees who will be subject to a plant closing or other “mass layoff.”<sup>93</sup> Beyond these limited requirements, employers will have to be mindful of other, more general employment regulations, such as anti-discrimination laws, as well as the requirements of labor contracts, in conducting layoffs or restructuring the workplace.<sup>94</sup>

## Enabling Workers

Although AI tech may cost some workers their jobs, on the other side of the ledger, AI may actually benefit workers with various kinds of disabilities or limitations by enabling them to perform tasks that formerly were beyond their abil-

---

ities. It has been suggested that employers may someday be faced with requests to deploy AI technology as an accommodation under anti-discrimination laws.<sup>95</sup>

## AI and the Work of Attorneys

The legal profession deals with huge volumes of data. So it is not too surprising that artificial intelligence techniques have made inroads, primarily for legal research tasks and, more recently, in electronic discovery. Primary and secondary legal sources have been available in digital form for decades, and providers of the major legal databases differentiate themselves with claims of possessing superior means of processing and presenting this data, primarily in the form of natural language processing algorithms.

New providers have come to the market recently with products that combine natural language processing with other AI techniques.<sup>96</sup> Ross Intelligence (a/k/a “Your Brand New Artificially Intelligent Lawyer”)<sup>97</sup> is built on IBM’s Watson platform. IBM Watson Legal is offering AI-based tools to assist attorneys in research and knowledge management tasks.<sup>98</sup> For example, Watson Legal is using AI techniques in its “Outside Counsel Insights” product, which automates the review of outside counsel invoices.<sup>99</sup> Another Watson offering aims at regulatory compliance.<sup>100</sup>

Legal research provider FastCase<sup>101</sup> offers a similar range of primary legal sources as the major providers but differentiates itself by offering visualization and sorting tools. These tools, it claims, allow users to more efficiently find the most relevant material for a given research topic. Similarly, legal search provider Ravel<sup>102</sup>

## Legal discovery is a fertile field for AI technologies.

offers analytic tools such as “judge analytics” and search visualization to aid in focusing research results and enable insights that might not be readily accessible by traditional legal research techniques. Ravel was recently acquired by LexisNexis, which stressed the importance of Ravel’s “machine-learning, artificial intelligence and natural language processing technologies [that] mine published case

opinions, providing a wealth of information that helps litigators quickly uncover new insights and build specific arguments for use in court.”<sup>103</sup>

Legal discovery is a fertile field for AI technologies, where the already large datasets generated in complex litigation for decades became massive when email and other forms of electronic documentation came into wide use in business and government. Natural language processing is an important AI technique in automated document discovery, as is predictive coding. Predictive coding is an important application of supervised machine learning. In predictive coding, a sample document set is categorized by a more senior attorney and then used as a basis for automatically learning filtering rules, by which relevant documents can be identified in the full data set. Such results can be reviewed and then used as a basis for progressive refinements.<sup>104</sup> The use of predictive coding in federal electronic discovery was validated in 2012 in *Da Silva Moore v. Publicis Groupe*; the district court cautioned, however, that predictive coding techniques were not required, nor appropriate, in all cases.<sup>105</sup> The law on this point continues to rapidly develop.<sup>106</sup>

Law firms, which are themselves huge repositories of attorney work product such as briefs, memoranda, and contracts, have long struggled to organize these for effective re-use. AI techniques similar to those used in electronic discovery are now being introduced to enable more effective access to this material.<sup>107</sup> For example, Kira is a software product that uses machine learning technology to search, analyze, and extract contract terms from large databases of such documents.<sup>108</sup>

## AI and Contract Law

Some twenty years ago, questions about the validity of transactions conducted electronically drove a major law revision project conducted by the National Conference of Commissioners on Uniform State Laws.<sup>109</sup> The culmination of the project in 1999 was the drafting and ultimate adoption of the Uniform Electronic Transactions Act (UETA) by the Uniform Law Commission. The draft legislation broadly validates electronic transactions.<sup>110</sup> UETA has now been adopted in some form in every state except Illinois, New York, and Washington. In 2000, UETA’s basic principles were adopted into federal law in the Federal Electronic Signatures in Global and National Commerce Act (“Federal E-Sign”).<sup>111</sup>

---

One section of the UETA that has received little attention since the act was adopted concerns the legal status of what the act describes as an “electronic agent.” An “electronic agent” is defined as “a computer program or an electronic or other automated means used independently to initiate an action or respond to electronic records or performances in whole or in part, without review or action by an individual.”<sup>112</sup> The UETA explicitly recognizes the validity of transactions conducted by an electronic agent by making it clear that the actions of such agents, when they are “programmed and used by people[,] will bind the user of the machine, regardless of whether human review of a particular transaction has occurred.”<sup>113</sup>

The drafters of the UETA were also forward-looking, recognizing that developments in technology would likely bring greater sophistication to the operation of electronic agents and a consequent change in how they might be viewed in the context of contract law:

While this Act proceeds on the paradigm that an electronic agent is capable of performing only within the technical strictures of its preset programming, it is conceivable that, within the useful life of this Act, electronic agents may be created with the ability to act autonomously, and not just automatically. That is, through developments in artificial intelligence, a computer may be able to “learn through experience, modify the instructions in their own programs, and even devise new instructions.” Allen and Widdison, “*Can Computers Make Contracts?*” 9 *Harv. J.L. & Tech* 25 (Winter, 1996). If such developments occur, courts may construe the definition of electronic agent accordingly, in order to recognize such new capabilities.<sup>114</sup>

The general approach of the UETA to electronic agents in contract formation is echoed in article 12 of the United Nations Convention on the Use of Electronic Communications in International Contracts.<sup>115</sup> As AI continues to be incorporated into technologies used for electronic transactions, the UETA provisions on electronic agents may provide a useful baseline for considering the effect of AI technologies on contract law.

## AI Technologies and IP Issues

With enhanced abilities in areas such as image and speech recognition, AI systems are moving beyond mere manipulation of data and into creative endeavors such as writing poetry.<sup>116</sup> Perhaps more importantly, AI systems are being used

to generate computer code.<sup>117</sup> Both, of course, are works entitled to copyright protection—but who is the author under copyright law? One scholar has suggested that the answer to the authorship questions under U.S. copyright law lies in amending the definition of the “work for hire” doctrine to apply explicitly to AI-generated works.<sup>118</sup> Attribution issues may also loom under patent law, where the issue of inventorship may be an issue.<sup>119</sup> A stealth issue in the relationship between AI systems and intellectual property may be the various rights in the underlying datasets that an AI system may use as training data for machine learning. For example, data that is made readily available online may be subject to rights and agreements that must be considered carefully in designing an AI system.<sup>120</sup>

## Selected Laws and Regulatory Provisions

### Industrial Robots

A good example of an industrial robot is a robot arm used in manufacturing that is carefully designed to repetitively perform an assigned function, such as welding specific spots on a car frame. The limited functionality of these types of robots is described in U.S. Department of Labor OSHA safety standards published in 1987, excerpted below. The OSHA safety standards identify hazards associated with these systems and include requirements for construction, reconstruction, modification, installation, safeguarding, care, testing, and start-up of robots and robotics systems, as well as training for robot and robotics systems operations and maintenance personnel.

Robots are reprogrammable, multifunctional, mechanical manipulators that typically employ one or more means of power: electromechanical, hydraulic, or pneumatic. Industrial robots have been used chiefly for spray painting, spot-welding, and transfer and assembly tasks. A robot performs its tasks in a physical area known as the robot operating work envelope. This work envelope is the volume swept by all possible programmable robot movements. This includes the area where work is performed by robot tooling.

\* \* \*

Most robots are set up for an operation by the teach-and-repeat technique. In this technique, a trained operator (programmer) typically uses a portable control device (commonly referred to as a teach pendant) to manually key a robot and its tasks.<sup>121</sup>

Generally, robotic work cells are separated from personnel via physical barriers like fences and/or safeguarding devices like light curtains that prevent robot motion when people or other systems are fully or partially inside the work cell.<sup>122</sup>

### Unmanned Aerial Systems (UASs), a/k/a "Drones"

These systems are also referred to as unmanned aerial vehicles (UAVs). A UAV system usually comprises the drone unit itself and the system used by the operator to control the drone unit remotely. Unmanned aerial systems have been in government and military use at least since the 1980s,<sup>123</sup> but the systems were extremely expensive and out of reach of ordinary users. In the last decade, the capabilities of UAVs have increased dramatically at the same time that their cost factor has decreased. Today, even relatively inexpensive hobby systems are capable of carrying a camera or a smartphone and, accordingly, engaging in remote surveillance.<sup>124</sup> There have also been numerous reports of small drones operating near airports, wildfires, and accident scenes, creating serious safety issues.<sup>125</sup>

**Forty states have adopted legislation governing some aspect of the operation of drones.**

**Federal Laws and Regulations.** The FAA Modernization and Reform Act of 2012<sup>126</sup> defines an "unmanned aircraft" as "an aircraft that is operated without the possibility of direct human intervention from within or on the aircraft," and an "unmanned aircraft system" as "an unmanned aircraft and associated elements (including communication links and the components that control the unmanned aircraft) that are required for the pilot in command to operate safely and efficiently in the national airspace system." Comprehensive information on legislation and FAA regulations applicable to UAVs is available on the FAA website.<sup>127</sup> In May 2017, a federal court struck down FAA regulations requiring hobbyists to register their UAVs.<sup>128</sup>

**State Laws.** The National Conference of State Legislatures reports that as of June 2017, forty states have adopted legislation—and three additional states have adopted resolutions—governing some aspect of the operation of UAVs, including measures that either permit or prohibit their use under certain circumstances, such

as prohibiting their operation near wildfires, near accident scenes, in proximity to critical infrastructures including correctional facilities, or in hunting wildlife.<sup>129</sup>

## Autonomous Vehicles

**Federal Policies.** Even before the fatal 2016 accident involving the Tesla vehicle (discussed above), concerns over the safety of self-driving vehicle technology prompted the NHTSA in 2013 to issue a Preliminary Statement of Policy Concerning Automated Vehicles.<sup>130</sup> The statement defined “automated vehicles” and outlines five “levels of automation” (Level 0 to Level 4) focusing on the level of “control” exercised by the vehicle operator as opposed to the vehicle. At the highest level of control defined by NHTSA—Full Self-Driving Automation (Level 4)—the vehicle is capable of exercising full control, and “safe operation rests solely on the automated vehicle system.”<sup>131</sup> The 2013 policy statement was updated in September 2016 with the issuance of the Federal Automated Vehicles Policy (FAVP 2016).<sup>132</sup> In FAVP 2016, NHTSA stopped using its five-level scale and adopted the six-level scale of SAE International, as specified by SAE Standard J3016. There is a lot of overlap between the NHTSA and SAE scales. The primary difference is the introduction, in SAE J3016, of its Level 4, called “high automation,” which, on the NHTSA scale, would correspond to a Level 3.5.

**State Regulation.** A number of states have embarked upon the regulation of self-driving cars. Nevada, the site of some of Google’s early self-driving car experiments, enacted legislation in response to lobbying by the company.<sup>133</sup> Google was also instrumental in prompting the adoption of legislation in California that has subsequently become a model for other states.<sup>134</sup> In 2015, the California Department of Motor Vehicles released draft regulations recognizing that the functionality of a self-driving car (or a vehicle operating in “autonomous mode”) depends upon a combination of hardware and software, as well as remote input:

§ 227.02. Definitions \*\*\* (a) “Autonomous mode” is the status of vehicle operation where technology that is a combination of hardware and software, both remote and on-board, performs the dynamic driving task, with or without a natural person actively monitoring the driving environment.

Opinions vary on the timeline for the widespread introduction of truly self-driving cars, where the “dynamic driving task” is fully performed by the vehicle’s AI system, but California recently upgraded its draft regulations to permit deployment of such vehicles on the state’s roads.<sup>135</sup>

---

This article was originally published in the PLI course handbook for the program [Think Like a Lawyer, Talk Like a Geek 2017: Get Fluent in Technology](#).

---

---

## NOTES

1. Timothy J. Seppala, *Apple Is Using AI to Make Siri Smarter*, ENGADGET (June 5, 2017), [www.engadget.com/2017/06/05/apple-is-using-ai-to-make-siri-smarter/](http://www.engadget.com/2017/06/05/apple-is-using-ai-to-make-siri-smarter/).
2. Michael Nuñez, *Amazon Echo Is the First Artificial Intelligence You'll Want at Home*, POPULAR SCI. (June 25, 2015), [www.popsci.com/amazon-echo-first-artificial-intelligence-youll-want-home](http://www.popsci.com/amazon-echo-first-artificial-intelligence-youll-want-home).
3. Sophie Estienne, *Artificial Intelligence Creeps into Daily Life*, PHYS.ORG (Dec. 15, 2016), <https://phys.org/news/2016-12-artificial-intelligence-daily-life.html>.
4. DAVID L. POOLE & ALAN K. MACKWORTH, ARTIFICIAL INTELLIGENCE: FOUNDATIONS OF COMPUTATIONAL AGENTS § 1.1 (Cambridge Univ. Press, 2d ed. 2017). The full text is available online under a Creative Commons Attribution-Noncommercial-No Derivative Works 2.5 Canada License at <http://artint.info/html/ArtInt.html> (accessed June 18, 2017).
5. See *infra*, “Selected Laws and Regulatory Provisions.”
6. See *id.*
7. Michael Liedtke, *Bomb Robot Used by Dallas Police Opens Ethical Debate*, ASSOCIATED PRESS (July 9, 2016), [www.bostonglobe.com/news/nation/2016/07/09/bomb-robot-used-dallas-police-opens-ethical-debate/R9vuFYgGUuyl6ltNBkTiK/story.html](http://www.bostonglobe.com/news/nation/2016/07/09/bomb-robot-used-dallas-police-opens-ethical-debate/R9vuFYgGUuyl6ltNBkTiK/story.html).
8. See, e.g., Gregory McNeal, *Drones and Aerial Surveillance: Considerations for Legislatures*, BROOKINGS (Nov. 2014), [www.brookings.edu/research/drones-and-aerial-surveillance-considerations-for-legislatures/](http://www.brookings.edu/research/drones-and-aerial-surveillance-considerations-for-legislatures/).
9. Sony announced that it would end its parts and repair service for its Aibo robot dogs in 2014, to the great dismay of longtime owners of the devices, some of whom regard the devices as family members. Takashi Mochizuki & Eric Pfanner, *In Japan, Dog Owners Feel Abandoned as Sony Stops Supporting “Aibo”*, WALL ST. J. (Feb. 11, 2015), [www.wsj.com/articles/in-japan-dog-owners-feel-abandoned-as-sony-stops-supporting-aibo-1423609536](http://www.wsj.com/articles/in-japan-dog-owners-feel-abandoned-as-sony-stops-supporting-aibo-1423609536).
10. Jon Emont, *Japan Prefers Robot Bears to Foreign Nurses*, FOREIGN POLICY (Mar. 1, 2017), <http://foreignpolicy.com/2017/03/01/japan-prefers-robot-bears-to-foreign-nurses/>.
11. *Partner Robot Family*, TOYOTA, [www.toyota-global.com/innovation/partner\\_robot/family.html](http://www.toyota-global.com/innovation/partner_robot/family.html) (last visited Sept. 19, 2017).
12. Angad Singh, “Emotional” robot sells out in a minute”, CNN (June 23, 2015), [www.cnn.com/2015/06/22/tech/pepper-robot-sold-out/index.html](http://www.cnn.com/2015/06/22/tech/pepper-robot-sold-out/index.html).
13. See REPORT TO CONGRESS: DARPA PRIZE AUTHORITY, FISCAL YEAR 2005 REPORT IN ACCORDANCE WITH 10 U.S.C. § 2374a (Mar. 2006), [http://archive.darpa.mil/grandchallenge/docs/Grand\\_Challenge\\_2005\\_Report\\_to\\_Congress.pdf](http://archive.darpa.mil/grandchallenge/docs/Grand_Challenge_2005_Report_to_Congress.pdf) (for a history of these efforts through 2005).
14. John Markoff, *Google Cars Drive Themselves, in Traffic*, N.Y. TIMES (Oct. 9, 2010), [www.nytimes.com/2010/10/10/science/10google.html](http://www.nytimes.com/2010/10/10/science/10google.html).
15. WAYMO, [www.google.com/selfdrivingcar/](http://www.google.com/selfdrivingcar/) (last visited Sept. 19, 2017).
16. See *Model S*, TESLA, [www.tesla.com/models](http://www.tesla.com/models) (last visited Sept. 19, 2017).

17. Danny Yadron & Dan Tynan, *Tesla Driver Dies in First Fatal Crash While Using Autopilot Mode*, GUARDIAN (June 30, 2016), [www.theguardian.com/technology/2016/jun/30/tesla-autopilot-death-self-driving-car-elon-musk](http://www.theguardian.com/technology/2016/jun/30/tesla-autopilot-death-self-driving-car-elon-musk). Various accounts at the time suggested that the driver was playing a videogame or watching a movie at the time of the accident, rather than attending to the operation of the vehicle. See, e.g., David Shepardson, *NHTSA Seeks Answers on Fatal Tesla Autopilot Crash*, AUTOMOTIVE NEWS (July 12, 2016), [www.autonews.com/article/20160712/OEM06/160719970/nhtsa-seeks-answers-on-fatal-tesla-autopilot-crash](http://www.autonews.com/article/20160712/OEM06/160719970/nhtsa-seeks-answers-on-fatal-tesla-autopilot-crash).
18. *A Tragic Loss*, TESLA (June 30, 2016), [www.tesla.com/blog/tragic-loss](http://www.tesla.com/blog/tragic-loss).
19. Even before the fatal accident involving the Tesla vehicle, concerns over the safety of self-driving vehicle technology prompted regulatory action by NHTSA. See the discussion of federal policy and state regulation of Autonomous Vehicles below.
20. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., ODI RESUME (Jan. 19, 2017) (Office of Defects Preliminary Evaluation, Investigation PE-16-007), <https://static.nhtsa.gov/odi/inv/2016/INCLA-PE16007-7876.PDF>.
21. See *Self-Driving Cars: Road to Deployment: Hearing Before the Subcomm. on Digital Commerce and Consumer Protection of the H. Comm. on Commerce*, 115th Cong. (Feb. 14, 2017), <https://energycommerce.house.gov/hearings-and-votes/hearings/self-driving-cars-road-deployment>; see also Steven Overly, *Will the Public Accept the Fatal Mistakes of Self-Driving Cars?*, WASH. POST (Feb. 20, 2017), [www.washingtonpost.com/business/economy/will-the-public-accept-the-fatal-mistakes-of-self-driving-cars/2017/02/20/6d16a20e-f55c-11e6-8d72-263470bf0401\\_story.html](http://www.washingtonpost.com/business/economy/will-the-public-accept-the-fatal-mistakes-of-self-driving-cars/2017/02/20/6d16a20e-f55c-11e6-8d72-263470bf0401_story.html).
22. Vangie Deal, *Big Data*, WEBOPEDIA, [www.webopedia.com/TERM/B/big\\_data.html](http://www.webopedia.com/TERM/B/big_data.html) (last visited Sept. 19, 2017).
23. Cloud Computing is “a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.” PETER MELL & TIMOTHY GRANCE, NAT'L INST. OF STANDARDS & TECH., SPECIAL PUBL'N 800-145, THE NIST DEFINITION OF CLOUD COMPUTING ¶ 2. (Sept. 2011), <http://nvlpubs.nist.gov/nistpubs/Legacy/SP/nistspecialpublication800-145.pdf>.
24. David J. Parnell, *Scott Mozarsky of Bloomberg BNA, On Technology, Big Data and Analytics Disrupting the Legal Sector*, FORBES (May 18, 2017), [www.forbes.com/sites/davidparnell/2017/05/18/scott-mozarsky-bloomberg-bna-tech-big-data-analytics-disrupting-legal-sector/#7eb5e0783574](http://www.forbes.com/sites/davidparnell/2017/05/18/scott-mozarsky-bloomberg-bna-tech-big-data-analytics-disrupting-legal-sector/#7eb5e0783574).
25. Bernard Marr, *How Is Big Data Used in Practice? 10 Use Cases Everyone Must Read*, BERNARD MARR & Co., [www.ap-institute.com/big-data-articles/how-is-big-data-used-in-practice-10-use-cases-everyone-should-read](http://www.ap-institute.com/big-data-articles/how-is-big-data-used-in-practice-10-use-cases-everyone-should-read) (last visited Sept. 20, 2017).
26. DANIEL SHIFFMAN, THE NATURE OF CODE ch. 10 (Neural Networks) (2012), <http://natureofcode.com/book/chapter-10-neural-networks/>.
27. Edwin Cartledge, *The Challenges of Artificial Intelligence*, TECHNOLOGIST (Jan. 9, 2017), [www.technologist.eu/the-challenges-of-artificial-intelligence/](http://www.technologist.eu/the-challenges-of-artificial-intelligence/).

28. Beth Hoffman & Rupashree Bhattacharya, *Machine Learning, Deep Learning 101*, IBM (July 20, 2016), [www.ibm.com/developerworks/library/l-machine-learning-deep-learning-trs/index.html](http://www.ibm.com/developerworks/library/l-machine-learning-deep-learning-trs/index.html).
  29. Adnan Masood, *On Explainability of Deep Neural Networks*, R&D BLOG (July 31, 2016), <http://blog.adnanmasood.com/2015/07/31/on-explainability-of-deep-neural-networks/>.
  30. Christof Koch, *How the Computer Beat the Go Master*, Sci. Am. (Mar. 19, 2016), [www.scientificamerican.com/article/how-the-computer-beat-the-go-master/](http://www.scientificamerican.com/article/how-the-computer-beat-the-go-master/).
  31. Ferrucci, et al., *Building Watson: An Overview of the DeepQA Project*, AI MAG. (Fall 2010), [www.aaai.org/Magazine/Watson/watson.php](http://www.aaai.org/Magazine/Watson/watson.php).
  32. George Saon, *Reaching New Records in Speech Recognition*, IBM Watson Blog (Mar. 7, 2017), [www.ibm.com/blogs/watson/2017/03/reaching-new-records-in-speech-recognition/](http://www.ibm.com/blogs/watson/2017/03/reaching-new-records-in-speech-recognition/).
  33. Winifred Phillips, *Introduction to Natural Language Processing*, CONSORTIUM ON COGNITIVE SCI. INSTRUCTION (2006), [www.mind.ilstu.edu/curriculum/protothinker/natural\\_language\\_processing.php](http://www.mind.ilstu.edu/curriculum/protothinker/natural_language_processing.php).
  34. *Introduction to Natural Language Processing*, ALGORITHMIA (Aug. 11, 2016), <http://blog.algorithmia.com/introduction-natural-language-processing-nlp/>.
  35. Richard Eckel, *Microsoft Researchers' Algorithm Sets ImageNet Challenge Milestone*, MICROSOFT RESEARCH BLOG (Feb. 10, 2015), [www.microsoft.com/en-us/research/microsoft-researchers-algorithm-sets-imagenet-challenge-milestone/](http://www.microsoft.com/en-us/research/microsoft-researchers-algorithm-sets-imagenet-challenge-milestone/). Teams competing in the ImageNet Large Scale Visual Recognition Challenge (ILSVRC) are provided with training images for 1,000 different classes, or types, of images. The teams then design machine recognition approaches, which are scored against test images included in the training image database. See *ImageNet Large Scale Visual Recognition Challenge (ILSVRC)*, IMAGENET, [www.image-net.org/challenges/LSVRC/](http://www.image-net.org/challenges/LSVRC/) (last visited Sept. 21, 2017).
  36. Eliza Strickland, *Facebook's Face Recognition Tech Goes on Trial*, IEEE SPECTRUM (Dec. 29, 2016), <http://spectrum.ieee.org/biomedical/imaging/facebooks-face-recognition-tech-goes-on-trial>.
  37. Michelle Taylor, *The Art of Facial Recognition*, FORENSIC MAG. (Mar. 13, 2017), [www.forensicmag.com/article/2017/03/art-facial-recognition](http://www.forensicmag.com/article/2017/03/art-facial-recognition).
  38. Aliya Sternstein, *Trump's Immigration Order Vastly Expands Border Surveillance*, CHRISTIAN SCI. MONITOR (Feb. 10, 2017), [www.csmonitor.com/World/Passcode/2017/0210/Trump-s-immigration-order-vastly-expands-border-surveillance](http://www.csmonitor.com/World/Passcode/2017/0210/Trump-s-immigration-order-vastly-expands-border-surveillance).
  39. Aaron Tilley, *Google's Second AI Chip Crashes Nvidia's Party*, FORBES (May 17, 2017), [www.forbes.com/sites/aarontilley/2017/05/17/googles-second-ai-chip-crashes-nvidias-party/#5a6e42ea6574](http://www.forbes.com/sites/aarontilley/2017/05/17/googles-second-ai-chip-crashes-nvidias-party/#5a6e42ea6574).
  40. Nick Statt, *Apple Reportedly Developing a Dedicated AI Chip for the iPhone*, THE VERGE (May 26, 2017), [www.theverge.com/2017/5/26/15702248/apple-neural-engine-ai-chip-iphone-ipad](http://www.theverge.com/2017/5/26/15702248/apple-neural-engine-ai-chip-iphone-ipad).
  41. *Artificial Intelligence: From the Cloud to Your Pocket*, SEEKING ALPHA (June 2, 2017), <https://seekingalpha.com/article/4078383-artificial-intelligence-cloud-pocket>.
  42. Jon Gertner, *IBM Watson Is Learning Its Way to Save Lives*, FAST COMPANY (Oct. 15, 2012), [www.fastcompany.com/3001739/ibms-watson-learning-its-way-saving-lives](http://www.fastcompany.com/3001739/ibms-watson-learning-its-way-saving-lives).
-

43. JOHN E. KELLY, III, IBM, COMPUTING, COGNITION AND THE FUTURE OF KNOWING: HOW HUMANS AND MACHINES ARE FORGING A NEW AGE OF UNDERSTANDING (Oct. 2015), [www.research.ibm.com/software/IBMRResearch/multimedia/Computing\\_Cognition\\_WhitePaper.pdf](http://www.research.ibm.com/software/IBMRResearch/multimedia/Computing_Cognition_WhitePaper.pdf).
44. Jo Best, *IBM Watson: The Inside Story of How the Jeopardy-Winning Supercomputer Was Born, and What It Wants to Do Next*, TECHREPUBLIC (Sept. 10, 2013), [www.techrepublic.com/article/ibm-watson-the-inside-story-of-how-the-jeopardy-winning-supercomputer-was-born-and-what-it-wants-to-do-next/](http://www.techrepublic.com/article/ibm-watson-the-inside-story-of-how-the-jeopardy-winning-supercomputer-was-born-and-what-it-wants-to-do-next/).
45. Evangelos Simoudis, *Watson on Jeopardy! Big Data Analytics and User Experience*, ENTERPRISE IRREGULARS (Feb. 22, 2011), [www.enterpriseirregulars.com/32458/watson-on-jeopardy-big-data-analytics-and-user-experience/](http://www.enterpriseirregulars.com/32458/watson-on-jeopardy-big-data-analytics-and-user-experience/).
46. *See Watson*, IBM, [www.ibm.com/watson/](http://www.ibm.com/watson/) (last visited Sept. 21, 2017).
47. *Watson: Products and Services*, IBM, [www.ibm.com/watson/products.html](http://www.ibm.com/watson/products.html) (last visited Sept. 21, 2017).
48. Science fiction writer Isaac Asimov's Three Laws of Robotics are: "1. A robot may not injure a human being or, through inaction, allow a human being to come to harm. 2. A robot must obey the orders given it by human beings except where such orders would conflict with the First Law. 3. A robot must protect its own existence as long as such protection does not conflict with the First or Second Laws." *See Three Laws of Robotics*, WIKIPEDIA, [https://en.wikipedia.org/wiki/Three\\_Laws\\_of\\_Robotics](https://en.wikipedia.org/wiki/Three_Laws_of_Robotics) (last visited Sept. 19, 2017).
49. Daniel Newman, *Artificial Intelligence: To Be Feared or Embraced*, FORBES (July 11, 2017), [www.forbes.com/sites/danielnewman/2017/07/11/artificial-intelligence-to-be-feared-or-embraced/#4d13109d6f09](http://www.forbes.com/sites/danielnewman/2017/07/11/artificial-intelligence-to-be-feared-or-embraced/#4d13109d6f09).
50. Elon Musk (@elonmusk), TWITTER (Aug. 2, 2014, 7:33 PM), <https://twitter.com/elonmusk/status/495759307346952192>.
51. Rory Cellan-Jones, *Stephen Hawking Warns Artificial Intelligence Could End Mankind*, BBC NEWS (Dec. 2, 2014), [www.bbc.com/news/technology-30290540](http://www.bbc.com/news/technology-30290540).
52. European Parliament Resolution of 16 February 2017 with Recommendations to the Commission on Civil Law Rules on Robotics (2015/2103(INL)), EUR. PARL. DOC. P8\_TA(2017)0051 (2017), [www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+TA+P8-TA-2017-0051+0+DOC+PDF+V0//EN](http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+TA+P8-TA-2017-0051+0+DOC+PDF+V0//EN).
53. European Parliament Draft Report with Recommendations to the Commission on Civil Law Rules on Robotics (2015/2103(INL)), EUR. PARL. DOC. 2015/2103(INL) (May 31, 2016) [hereinafter RULES ON ROBOTICS], [www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML%2BCOMPARL%2BPE-582.443%2B01%2BDOC%2BPDF%2BV0//EN](http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML%2BCOMPARL%2BPE-582.443%2B01%2BDOC%2BPDF%2BV0//EN).
54. *See, e.g.*, James Vincent, *Giving Robots "Personhood" Is Actually About Making Corporations Accountable*, VERGE (Jan. 19, 2017), [www.theverge.com/2017/1/19/14322334/robot-electronic-persons-eu-report-liability-civil-suits](http://www.theverge.com/2017/1/19/14322334/robot-electronic-persons-eu-report-liability-civil-suits).
55. *Citizens United v. Fed. Election Comm'n*, 130 S. Ct. 876 (2010); *see* Kent Greenfield & Adam Winkler, *The U.S. Supreme Court's Cultivation of Corporate Personhood*, ATLANTIC (June 24, 2015), [www.theatlantic.com/politics/archive/2015/06/raisins-hotels-corporate-personhood-supreme-court/396773/](http://www.theatlantic.com/politics/archive/2015/06/raisins-hotels-corporate-personhood-supreme-court/396773/).

56. The issue of reliance on “black box” technology was touched upon by the court in the leading ruling on the validity of predictive coding in document discovery, discussed below. *See* *Da Silva Moore v. Publicis Groupe*, 2012 U.S. Dist. LEXIS 23350, \*7–9 (Feb. 24, 2012) (magistrate’s ruling), *adopted*, 2012 U.S. Dist. LEXIS 58742 (S.D.N.Y. Apr. 25, 2012).
  57. Julia Angwin, et al., *Machine Bias*, PROPUBLICA (May 23, 2016), [www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing](http://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing).
  58. *Law Enforcement’s Use of Facial Recognition Technology: Hearing Before H. Comm. on Oversight & Government Reform*, 115th Cong. (Mar. 22, 2017) (testimony of Jennifer Lynch, Senior Staff Attorney, Electronic Frontier Foundation), <https://oversight.house.gov/hearing/law-enforcements-use-facial-recognition-technology/>.
  59. Will Knight, *The Dark Secret at the Heart of AI*, MIT TECH. REV. (Apr. 11, 2017), [www.technologyreview.com/s/604087/the-dark-secret-at-the-heart-of-ai/](http://www.technologyreview.com/s/604087/the-dark-secret-at-the-heart-of-ai/).
  60. Tom Simonite, *Two Giants of AI Team Up to Head Off the Robot Apocalypse*, WIRED (July 7, 2017), [www.wired.com/story/two-giants-of-ai-team-up-to-head-off-the-robot-apocalypse/](http://www.wired.com/story/two-giants-of-ai-team-up-to-head-off-the-robot-apocalypse/).
  61. Charles McLellan, *Inside the Black Box: Understanding AI Decision-Making*, ZDNET (Dec. 1, 2016), [www.zdnet.com/article/inside-the-black-box-understanding-ai-decision-making/](http://www.zdnet.com/article/inside-the-black-box-understanding-ai-decision-making/).
  62. Preston Gralla, *Amazon Prime and the Racist Algorithms*, COMPUTERWORLD (May 11, 2016), [www.computerworld.com/article/3068622/internet/amazon-prime-and-the-racist-algorithms.html](http://www.computerworld.com/article/3068622/internet/amazon-prime-and-the-racist-algorithms.html).
  63. Swati Khandelwal, *Microsoft Says It’s Deeply Sorry for Racist and Offensive Tweets by Tay AI Chatbot*, THE HACKER NEWS (Mar. 25, 2016), <http://thehackernews.com/2016/03/artificial-intelligence-bot.html>.
  64. *Adversarial Machine Learning*, WIKIPEDIA, [https://en.wikipedia.org/wiki/Adversarial\\_machine\\_learning](https://en.wikipedia.org/wiki/Adversarial_machine_learning) (last visited Sept. 21, 2017).
  65. *United States v. Maynard*, 615 F.3d 544 (D.C. Cir. 2010), *aff’d sub nom. United States v. Jones*, 132 S. Ct. 945 (2012).
  66. *Id.*, 615 F.2d at 558–62.
  67. *United States v. Jones*, 132 S. Ct. 945 (2012). Justice Scalia’s majority opinion focused on the trespass involved in the affixation of the GPS device to the suspect’s vehicle.
  68. *Id.* at 957 (Sotomayor, J., concurring). Justice Alito’s concurring opinion, joined by three Justices including Sotomayor, expressed similar concerns about the exponential risks to privacy presented by digital surveillance technologies that enable the monitoring of “every single movement” of an individual’s vehicle over a sustained period of time. *Id.* (Alito, J., concurring).
  69. *See, e.g.*, Martin Anderson, *UK Gov: AI Growth Could Reidentify Individuals from Big Data*, STACK (Nov. 9, 2016), <https://thystack.com/big-data/2016/11/09/uk-gov-ai-growth-could-reidentify-individuals-from-big-data/>.
  70. Apple and Facebook later became founding partners as well. Alex Webb, *Apple Set to Join Amazon, Google, Facebook in AI Research Group*, BLOOMBERG TECH. (Jan. 25, 2017), [www.bloomberg.com/news/articles/2017-01-26/apple-said-to-join-amazon-google-facebook-in-ai-research-group](http://www.bloomberg.com/news/articles/2017-01-26/apple-said-to-join-amazon-google-facebook-in-ai-research-group).
-

71. PARTNERSHIP ON AI, [www.partnershiponai.org/](http://www.partnershiponai.org/) (last visited Sept. 21, 2017).
  72. Patrick Lin & Evan Selinger, *Inside Google's Mysterious Ethics Board*, FORBES (Feb. 3, 2014), [www.forbes.com/sites/privacynotice/2014/02/03/inside-googles-mysterious-ethics-board/#3d487450848c](http://www.forbes.com/sites/privacynotice/2014/02/03/inside-googles-mysterious-ethics-board/#3d487450848c).
  73. Alex Hern, *Whatever Happened to the DeepMind AI Ethics Board Google Promised?*, GUARDIAN (Jan. 26, 2017), [www.theguardian.com/technology/2017/jan/26/google-deepmind-ai-ethics-board](http://www.theguardian.com/technology/2017/jan/26/google-deepmind-ai-ethics-board).
  74. See the discussion of Selected Laws and Regulatory Provisions, Industrial Robots, below.
  75. See *The 2003 Inductees: Unimate*, ROBOT HALL OF FAME (Sept. 26, 2011), [www.robothalloffame.org/ultimate.html](http://www.robothalloffame.org/ultimate.html) [<https://web.archive.org/web/20110926213115/http://www.robothalloffame.org/unimate.html>].
  76. Paul Wiseman, *Why Robots, Not Trade, Are Behind So Many Factory Job Losses*, ASSOCIATED PRESS (Nov. 3, 2016), [www.chicagotribune.com/bluesky/technology/ct-robots-trade-factory-job-losses-ap-bsi-20161103-story.html](http://www.chicagotribune.com/bluesky/technology/ct-robots-trade-factory-job-losses-ap-bsi-20161103-story.html); *How Vulnerable Are American Communities to Automation, Trade, & Urbanization?*, CBER DATA CTR. (June 19, 2017), <http://projects.cberdata.org/123/how-vulnerable-are-american-communities-to-automation-trade-urbanization>.
  77. *The Last Kodak Moment?*, ECONOMIST (Jan. 14, 2012), [www.economist.com/node/21542796](http://www.economist.com/node/21542796).
  78. Kodak has since come back as a much smaller enterprise. Tendayi Viki, *On The Fifth Anniversary of Kodak's Bankruptcy, How Can Large Companies Sustain Innovation?*, FORBES (Jan. 19, 2017), [www.forbes.com/sites/tendayiviki/2017/01/19/on-the-fifth-anniversary-of-kodaks-bankruptcy-how-can-large-companies-sustain-innovation/#7c7dd0ec6280](http://www.forbes.com/sites/tendayiviki/2017/01/19/on-the-fifth-anniversary-of-kodaks-bankruptcy-how-can-large-companies-sustain-innovation/#7c7dd0ec6280).
  79. Yoni Heisler, *Once Mocked, Facebook's \$1 Billion Acquisition of Instagram Was a Stroke Of Genius*, BGR (Dec. 29, 2016), <http://bgr.com/2016/12/29/facebook-instagram-acquisition-1-billion-genius/>.
  80. Kurt Wagner, *Inside Instagram's Reinvention*, RECODE (Jan. 23, 2017), [www.recode.net/2017/1/23/14205686/instagram-product-launch-feature-kevin-systrom-weil](http://www.recode.net/2017/1/23/14205686/instagram-product-launch-feature-kevin-systrom-weil).
  81. Jack Smith IV, *After Robots Take Our Jobs, This Is What the Economy Will Look Like*, MIC (June 10, 2015) (citing JARON LANIER, WHO OWNS THE FUTURE (2013)), <https://mic.com/articles/119896/after-robots-take-our-jobs-basic-income-is-the-best-solution#.g89yN84yk>.
  82. Dan Shewan, *Robots Will Destroy Our Jobs—and We're Not Ready for It*, GUARDIAN (Jan. 11, 2017), [www.theguardian.com/technology/2017/jan/11/robots-jobs-employees-artificial-intelligence](http://www.theguardian.com/technology/2017/jan/11/robots-jobs-employees-artificial-intelligence).
  83. Press Release, Associated Press, NCAA to Grow College Sports Coverage with Automated Game Stories (Mar. 4, 2015), [www.ap.org/press-releases/2015/ap-ncaa-to-grow-college-sports-coverage-with-automated-game-stories](http://www.ap.org/press-releases/2015/ap-ncaa-to-grow-college-sports-coverage-with-automated-game-stories).
  84. Kristin Houser, *Major Firm Announces It's Replacing Its Employees with A.I.*, FUTURISM (Mar. 30, 2017), <https://futurism.com/major-firm-announces-its-replacing-its-employees-with-a-i/>.
-

85. Executive Office of the President, Artificial Intelligence, Automation and the Economy (Dec. 16, 2016), <https://obamawhitehouse.archives.gov/sites/whitehouse.gov/files/documents/Artificial-Intelligence-Automation-Economy.PDF>.
  86. Chris Weller, *Universal Basic Income Has Support from Some Big Names*, WORLD ECON. FORUM (Mar. 21, 2017), [www.weforum.org/agenda/2017/03/these-entrepreneurs-have-endorsed-universal-basic-income](http://www.weforum.org/agenda/2017/03/these-entrepreneurs-have-endorsed-universal-basic-income).
  87. Dylan Love, *Is Universal Basic Income the Answer to an Automated Future?*, NBC NEWS (Dec. 7, 2016), [www.nbcnews.com/storyline/the-big-questions/universal-basic-income-answer-automated-future-n692801](http://www.nbcnews.com/storyline/the-big-questions/universal-basic-income-answer-automated-future-n692801).
  88. See RULES ON ROBOTICS, *supra* note 53, at ¶ 23: “Bearing in mind the effects that the development and deployment of robotics and AI might have on employment and, consequently, on the viability of the social security systems of the Member States, consideration should be given to the possible need to introduce corporate reporting requirements on the extent and proportion of the contribution of robotics and AI to the economic results of a company for the purpose of taxation and social security contributions; takes the view that in the light of the possible effects on the labour market of robotics and AI a general basic income should be seriously considered, and invites all Member States to do so.”
  89. Michael J. Coren, *Support for a Universal Basic Income Is Inching Up in Europe*, QUARTZ (May 8, 2017), <https://qz.com/976032/support-for-a-universal-basic-income-is-inching-up-in-europe/>.
  90. Anisa Holmes, *31% of Europeans Want Basic Income As Soon As Possible*, DALIA RESEARCH BLOG (May 3, 2017), <https://daliaresearch.com/blog-31-of-europeans-want-basic-income-as-soon-as-possible/>.
  91. See RULES ON ROBOTICS, *supra* note 53; see also Jorge Valero, *Parliament Plenary Rejects Universal Basic Income*, EURACTIV (Feb. 22, 2017), [www.euractiv.com/section/economy-jobs/news/parliament-plenary-rejects-universal-basic-income/](http://www.euractiv.com/section/economy-jobs/news/parliament-plenary-rejects-universal-basic-income/).
  92. See, e.g., Cal. State Library Multimedia, *Driving or Driven? California and the World of the Future*, YOUTUBE (Mar. 27, 2017), [www.youtube.com/watch?v=DOCMOcaYIWI](http://www.youtube.com/watch?v=DOCMOcaYIWI) (discussing economic projections of job loss due to the digital economy by an expert panel, where Irena Asmundson, California’s chief economist, suggested that as the digital economy displaced existing jobs, new ones would open up).
  93. U.S. Dep’t of Labor Fact Sheet, *The Worker Adjustment and Retraining Notification Act*, [www.doleta.gov/programs/factsht/warn.htm](http://www.doleta.gov/programs/factsht/warn.htm) (last visited Sept. 21, 2017).
  94. George P. Barbatsuly, *Avoiding Legal Risks in Workplace Reductions*, BLOOMBERG L. REP. (2010), [www.klgates.com/files/Publication/1b0aa05f-c732-445a-ac24-1281f2fc1ba4/Presentation/PublicationAttachment/7a305f5b-e3a2-49d7-b3cf-1526fce3dbef/kl\\_gates\\_barbatsuly\\_article.pdf](http://www.klgates.com/files/Publication/1b0aa05f-c732-445a-ac24-1281f2fc1ba4/Presentation/PublicationAttachment/7a305f5b-e3a2-49d7-b3cf-1526fce3dbef/kl_gates_barbatsuly_article.pdf).
  95. LITTLER REPORTS, *THE TRANSFORMATION OF THE WORKPLACE THROUGH ROBOTICS, ARTIFICIAL INTELLIGENCE, AND AUTOMATION: EMPLOYMENT AND LABOR LAW ISSUES, SOLUTIONS, AND THE LEGISLATIVE AND REGULATORY RESPONSE* (Jan. 2016), [www.littler.com/files/2016\\_wp\\_transformation\\_of\\_the\\_workplace\\_through\\_robotics\\_ai\\_and\\_automation\\_2.pdf](http://www.littler.com/files/2016_wp_transformation_of_the_workplace_through_robotics_ai_and_automation_2.pdf).
-

96. Michael Mills, *Artificial Intelligence in Law: The State of Play 2016 (Part 2)*, THOMSON REUTERS (Mar. 1, 2016), <http://legalexecutiveinstitute.com/artificial-intelligence-in-law-the-state-of-play-2016-part-2/>.
97. See ROSS INTELLIGENCE, [www.rossintelligence.com/](http://www.rossintelligence.com/) (last visited Sept. 21, 2017).
98. Rhys Dipshan, *IBM's Watson Makes New Inroads into Legal with Discovery, Business Research Offerings*, CORPORATE COUNSEL (Mar. 22, 2017), [www.corpcounsel.com/in-house-tech/id=1202781823313/IBMs-Watson-Makes-New-Inroads-Into-Legal-With-Discovery-Business-Research-Offerings?mcode=1202617375775&curindex=17](http://www.corpcounsel.com/in-house-tech/id=1202781823313/IBMs-Watson-Makes-New-Inroads-Into-Legal-With-Discovery-Business-Research-Offerings?mcode=1202617375775&curindex=17).
99. Jennifer Williams-Alvarez, *IBM Says New Watson Tool Could Dramatically Reduce Outside Counsel Spend*, CORPORATE COUNSEL (May 16, 2017), [www.corpcounsel.com/id=1202786434937/IBM-Says-New-Watson-Tool-Could-Dramatically-Reduce-Outside-Counsel-Spend](http://www.corpcounsel.com/id=1202786434937/IBM-Says-New-Watson-Tool-Could-Dramatically-Reduce-Outside-Counsel-Spend).
100. Steve Cocheo, *IBM Watson Takes on Compliance*, BANKING EXCH. (May 31, 2017), [www.bankingexchange.com/news-feed/item/6875-ibm-watson-takes-on-compliance?Itemid=260](http://www.bankingexchange.com/news-feed/item/6875-ibm-watson-takes-on-compliance?Itemid=260).
101. *What Is Fastcase?*, FASTCASE, [www.fastcase.com/whatisfastcase/](http://www.fastcase.com/whatisfastcase/) (last visited Sept. 21, 2017).
102. RAVEL LAW, [www.ravellaw.com/](http://www.ravellaw.com/) (last visited Sept. 21, 2017).
103. Press Release, PRWeb, LexisNexis Announces Acquisition of Ravel Law (June 8, 2017), [www.prweb.com/releases/2017/06/prweb14382475.htm](http://www.prweb.com/releases/2017/06/prweb14382475.htm).
104. Alison Nadel, Daniel McGuire, Erica Wenninger, *E-Discovery: The Value of Predictive Coding in Internal Investigations*, INSIDE COUNSEL (Aug. 13, 2013) [www.insidecounsel.com/2013/08/13/e-discovery-the-value-of-predictive-coding-in-inte?page=2&slreturn=1471915023](http://www.insidecounsel.com/2013/08/13/e-discovery-the-value-of-predictive-coding-in-inte?page=2&slreturn=1471915023).
105. *Da Silva Moore v. Publicis Groupe & MSL Grp.*, 287 F.R.D. 182 (S.D.N.Y. 2012) (magistrate's ruling), *adopting* 2012 WL 1446534 (S.D.N.Y. Apr. 26, 2012).
106. See, e.g., Wallis M. Hampton, *Predictive Coding: It's Here to Stay*, E-DISCOVERY BULL. (June/July 2014), [www.skadden.com/sites/default/files/publications/LIT\\_JuneJuly14\\_EDiscoveryBulletin.pdf](http://www.skadden.com/sites/default/files/publications/LIT_JuneJuly14_EDiscoveryBulletin.pdf).
107. Judith Lamont, *AI Takes Hold in the Legal Profession*, KM WORLD (Jan. 30, 2017), [www.kmworld.com/Articles/Editorial/Features/AI-takes-hold-in-the-legal-profession-115913.aspx](http://www.kmworld.com/Articles/Editorial/Features/AI-takes-hold-in-the-legal-profession-115913.aspx).
108. KIRA, <https://kirasystems.com/> (last visited Sept. 21, 2017).
109. UNIFORM LAW COMMISSION, [www.uniformlaws.org/](http://www.uniformlaws.org/) (last visited Sept. 21, 2017).
110. UNIF. ELECTRONIC TRANSACTIONS ACT (1999) (UNIF. LAW COMM'N 1999) [hereinafter UETA], [www.uniformlaws.org/shared/docs/electronic%20transactions/ueta\\_final\\_99.pdf](http://www.uniformlaws.org/shared/docs/electronic%20transactions/ueta_final_99.pdf).
111. 15 U.S.C. § 7001 *et seq.*
112. UETA, *supra* note 110, Prefatory Note.
113. *Id.* § 2(6) (defining “electronic agent”).
114. *Id.* cmt. 5.
115. United Nations Commission on International Trade Law (UNCITRAL), United Nations Convention on the Use of Electronic Communications in International Contracts (2007), [www.uncitral.org/pdf/english/texts/electcom/06-57452\\_Ebook.pdf](http://www.uncitral.org/pdf/english/texts/electcom/06-57452_Ebook.pdf). See the discussion of article 12, “Use of automated message systems for contracts formation.” *Id.* at 7.

116. Rhiannon Williams, *Google's Artificial Intelligence Writes Miserable Poetry*, TELEGRAPH (May 16, 2016), [www.telegraph.co.uk/technology/2016/05/16/googles-artificial-intelligence-writes-miserable-poetry/](http://www.telegraph.co.uk/technology/2016/05/16/googles-artificial-intelligence-writes-miserable-poetry/).
  117. Davd Gershgorn, *Microsoft's AI Is Learning to Write Code By Itself, Not Steal It*, QUARTZ (Mar. 1, 2017), <https://qz.com/920468/artificial-intelligence-created-by-microsoft-and-university-of-cambridge-is-learning-to-write-code-by-itself-not-steal-it/> (last visited July 12, 2017).
  118. Annemarie Bridy, *Coding Creativity: Copyright and the Artificially Intelligent Author*, 2012 STAN. TECH. LAW REV. 5 (2012), <http://journals.law.stanford.edu/stanford-technology-law-review/online/coding-creativity-copyright-and-artificially-intelligent-author>.
  119. Toby Bond, *How Artificial Intelligence Is Set to Disrupt Our Legal Framework for Intellectual Property Rights*, IP WATCHDOG (June 18, 2017), [www.ipwatchdog.com/2017/06/18/artificial-intelligence-disrupt-legal-framework-intellectual-property-rights/id=84319/](http://www.ipwatchdog.com/2017/06/18/artificial-intelligence-disrupt-legal-framework-intellectual-property-rights/id=84319/).
  120. *Id.*
  121. Occupational Safety & Health Admin., Guidelines for Robotics Safety (Dep't of Labor Sept. 21, 1987), [www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=DIRECTIVES&p\\_id=1703](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=DIRECTIVES&p_id=1703).
  122. OCCUPATIONAL SAFETY & HEALTH ADMIN., OSHA TECHNICAL MANUAL § IV, ch. 4 (Industrial Robots and Robot System Safety) (Jan. 13, 2017), [www.osha.gov/dts/osta/otm/otm\\_iv/otm\\_iv\\_4.html](http://www.osha.gov/dts/osta/otm/otm_iv/otm_iv_4.html).
  123. John Sifton, *A Brief History of Drones*, NATION (Feb. 27, 2012), [www.thenation.com/article/brief-history-drones/](http://www.thenation.com/article/brief-history-drones/).
  124. *Spotlight on Surveillance: Drones: Eyes in the Sky*, ELEC. PRIVACY INFO. CTR. [EPIC] (Oct. 2014), <https://epic.org/privacy/surveillance/spotlight/1014/drones.html>.
  125. *See, e.g.*, Jonathan Vanian, *Drones Are Still Flying Dangerously Close to Airplanes and Airports*, FORTUNE (Mar. 28, 2016), <http://fortune.com/2016/03/28/drones-flying-too-close-airplanes-airports/>; Megan Geuss, *As Wildfire Season Ramps Up, Nearby Drones Are Becoming a Problem Again*, ARSTECHNICA (June 27, 2016), <http://arstechnica.com/tech-policy/2016/06/as-wildfire-season-ramps-up-nearby-drones-are-becoming-a-problem-again/>.
  126. Pub. L. No. 112-95 (Feb. 14, 2012).
  127. *Unmanned Aircraft Systems (UAS) Regulations & Policies*, FED. AVIATION ADMIN. (July 11, 2017), [www.faa.gov/uas/resources/uas\\_regulations\\_policy/](http://www.faa.gov/uas/resources/uas_regulations_policy/) (last visited June 18, 2017).
  128. Taylor v. Huerta, 856 F.3d 1089 (D.C. Cir. 2017); *see* Amanda Essex, *Court Shoots Down Drone Registration for Hobbyists*, NCSL BLOG (May 23, 2017), [www.ncsl.org/blog/2017/05/23/court-shoots-down-drone-registration-for-hobbyists.aspx](http://www.ncsl.org/blog/2017/05/23/court-shoots-down-drone-registration-for-hobbyists.aspx).
  129. *See Current Unmanned Aircraft State Law Landscape*, NAT'L CONFERENCE OF STATE LEGISLATURES (July 25, 2017), [www.ncsl.org/research/transportation/current-unmanned-aircraft-state-law-landscape.aspx](http://www.ncsl.org/research/transportation/current-unmanned-aircraft-state-law-landscape.aspx).
  130. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., PRELIMINARY STATEMENT OF POLICY CONCERNING AUTOMATED VEHICLES 5 (2013), [www.nhtsa.gov/staticfiles/rulemaking/pdf/Automated\\_Vehicles\\_Policy.pdf](http://www.nhtsa.gov/staticfiles/rulemaking/pdf/Automated_Vehicles_Policy.pdf).
  131. *Id.* at 5.
-

132. DOT/NHTSA POLICY STATEMENT CONCERNING AUTOMATED VEHICLES: 2016 UPDATE TO “PRELIMINARY STATEMENT OF POLICY CONCERNING AUTOMATED VEHICLES” (2016), [www.nhtsa.gov/staticfiles/rulemaking/pdf/Autonomous-Vehicles-Policy-Update-2016.pdf](http://www.nhtsa.gov/staticfiles/rulemaking/pdf/Autonomous-Vehicles-Policy-Update-2016.pdf); *see also Automated Vehicles for Safety*, NAT’L HIGHWAY TRAFFIC SAFETY ADMIN., [www.nhtsa.gov/technology-innovation/automated-vehicles](http://www.nhtsa.gov/technology-innovation/automated-vehicles) (last visited Sept. 19, 2017) (providing links to relevant documents, publications, and other materials).
133. John Markoff, *Google Lobbies Nevada to Allow Self-Driving Cars*, N.Y. TIMES (May 10, 2011), [www.nytimes.com/2011/05/11/science/11drive.html](http://www.nytimes.com/2011/05/11/science/11drive.html).
134. Regulation of self-driving cars is an active area of state legislation. The National Conference of State Legislatures maintains a real-time database of information on the topic. *Autonomous Vehicles Legislative Database*, NAT’L CONFERENCE OF STATE LEGISLATURES (Sept. 6, 2017), [www.ncsl.org/research/transportation/autonomous-vehicles-legislative-database.aspx](http://www.ncsl.org/research/transportation/autonomous-vehicles-legislative-database.aspx).
135. *Deployment of Autonomous Vehicles for Public Operation*, CAL. DEP’T OF MOTOR VEHICLES, [www.dmv.ca.gov/portal/dmv/detail/vr/autonomous/auto](http://www.dmv.ca.gov/portal/dmv/detail/vr/autonomous/auto) (last visited Sept. 21, 2017).



# The Current

## The Journal of PLI Press

---

Vol. 1, No. 2, Autumn 2017

## Unmanned Aircraft Systems: The Evolving Legal Landscape in the United States and Europe

**Kenneth P. Quinn, Jennifer Trock,  
Graham C. Keithley, Chris Leuchten**

*Baker & McKenzie LLP*

Unmanned aircraft systems (“UAS” or “drones”) are turning aviation law on its head. With low costs, easy use, and a growing number of applications, UAS are entering the National Airspace System (“NAS”) with millions of new users that previously had no way to access it. The integration of UAS into the NAS is one of the most significant challenges in aviation law since the deregulation of the U.S. airline industry in 1978. These market changes and regulatory challenges are also being realized throughout the world.

The sheer number of UAS drives the enormous and growing impact. Between December 2015—when the Federal Aviation Administration (“FAA”) began requiring registration of UAS—and March 2017, more than 800,000 UAS were registered. Many thousands more are likely unregistered, and in 2017, the U.S. Court of Appeals for the D.C. Circuit prohibited the FAA from requiring the registration of UAS that are only used for recreational purposes, also known as flying “model aircraft.”<sup>1</sup> The FAA forecasts the total number of UAS in the United States may surpass six million by 2021. In comparison, approximately 320,000 manned aircraft are registered in the United States as of 2016.<sup>2</sup>

## **The total number of drones in the United States may surpass 6 million by 2021.**

In turn, aviation law is rapidly evolving to address the influx of UAS, both in the United States and throughout the world. This article reviews the current and proposed regulatory regimes in the United States and the European Union, provides updates on the recurring debates concerning privacy and preemption, and predicts potential legal changes that may be implemented in the coming months and years.

### **The U.S. Regulatory Framework Needs Improvements and Expansion to Model Aircraft**

#### **Part 107—One Year Later**

Over one year ago, the FAA regulation governing commercial operations of small UAS (“sUAS”) in the NAS took effect.<sup>3</sup> Promulgated under 14 C.F.R. part 107 (“Part 107”), the rules redefined the UAS regime in the United States.

When the FAA issued the regulation, it permitted a wide variety of commercial operations that had previously required an application, case-by-case review, and FAA approval through various exemptions to existing aviation regulations. In particular, Part 107 allows sUAS weighing 55 lbs. or less to fly without FAA

approval so long as the operation remains within Part 107's limitations.<sup>4</sup> Among other restrictions, Part 107 requires that operations be within visual line of sight ("VLOS") at all times, over participants only, at daytime or twilight hours with proper lighting, at a maximum airspeed of 100 mph, and at a maximum altitude of 400 feet above ground level or within 400 feet of a structure.<sup>5</sup> Part 107 permits operations in uncontrolled Class G airspace or in controlled airspace with prior approval from FAA Air Traffic Control.<sup>6</sup>

Part 107 also included a waiver mechanism to allow UAS operators to operate outside the Part 107 limitations, provided the applicant meets certain safety requirements specific to the intended operation. Waivable operations include operations from a moving vehicle or aircraft, nighttime operations, operations beyond VLOS, operations of multiple sUAS simultaneously, and operations over non-participants.<sup>7</sup> The FAA provides guidelines that detail FAA's expected safety mitigations that applicants should put in place for each type of waiver.<sup>8</sup> So far, over 1,200 waivers have been granted,<sup>9</sup> the vast majority of which are for nighttime operations.<sup>10</sup>

Part 107 lifted the burden of approving hundreds of thousands of applications for low-altitude, low-risk operations in uncontrolled airspace with sUAS. Undoubtedly, this has also benefited commercial sUAS operators that can now operate without the costly and time-consuming application process.

On the other hand, Part 107's limitations are becoming evident, and improvements are necessary to keep up with the rapidly changing UAS industry. Particularly, the FAA needs to accelerate and expedite sUAS operations that are commonplace and known to be low-risk. For example, the FAA routinely approves waivers for nighttime operations with a certain set of limitations, which could be done through blanket waivers or revisions to Part 107. Similarly, airspace approvals for operations in certain controlled airspace could be streamlined—the current ninety-day approval process is too long for many Part 107 low-altitude operators that present no risk to manned aviation.

Congress and the administration appear to be considering some additional changes to Part 107. The U.S. Department of Transportation ("DOT") updated its report on significant rulemakings forthcoming and included a long-delayed rule related to operation of sUAS over people.<sup>11</sup> The DOT now expects that proposed rule, originally slated for publication in December 2016, to be published by February 28, 2018. Such operations would significantly expand the universe for

Part 107 operations, such as over roads or sidewalks. Likewise, Congress's draft versions of FAA reauthorization bills include numerous possible changes, includ-

## **Currently the FAA may not promulgate any rule or regulation regarding a model aircraft.**

ing package delivery, operations beyond VLOS in coordination with unmanned traffic management technology, and separate rules for micro-drones under 4.4 lbs.

### **Regulation of Recreational UAS Operations**

The FAA has a different regulatory regime for model aircraft.<sup>12</sup> As a result of federal statutes, the FAA has far less control over model aircraft as compared to commercial operations under Part 107. As long as the operator of the model aircraft abides by some limited restrictions,<sup>13</sup> “the Administrator of the Federal Aviation Administration may not promulgate any rule or regulation regarding a model aircraft.”<sup>14</sup> A recent federal appellate decision upheld a broad interpretation of this prohibition.

In December 2015, responding to the rapid increase in UAS, the FAA began requiring registration of UAS over 0.55 lbs. The registration rule included model aircraft. Administrator Michael Huerta stated that the registration rule provides the FAA the “opportunity to educate these new airspace users before they fly so they know the airspace rules and understand they are accountable to the public for flying responsibly.”<sup>15</sup>

Soon after implementation, John Taylor, a drone hobbyist, filed a pro se challenge to the registration rule, alleging that the FAA was in violation of the statute that prohibits the FAA from promulgating “any rule or regulation regarding a model aircraft.” The FAA argued that its registration rule was premised on its preexisting authority to require the registration of all aircraft and on its authority to ensure the safety of the NAS. In 2017, the U.S. Court of Appeals for the D.C.

Circuit agreed with Taylor, holding that “the Registration Rule is unlawful as applied to model aircraft.” The panel opinion also rebuked the FAA, stating that “[s]tatutory interpretation does not get much simpler.”<sup>16</sup>

The FAA did not appeal the court’s decision, but appears to be working with Congress to change the FAA’s underlying statutory authority over model aircraft operations.<sup>17</sup> The FAA continues to enforce prohibitions on reckless and careless operation of UAS, but unless *Taylor v. Huerta* is overturned by legislation, the FAA’s ability to directly regulate recreational sUAS operations appear to be significantly stifled.

### **EASA’s Proposed Regulatory Shift: Good for Some, Uncertainty for Others**

The UAS industry currently navigates through a patchwork of UAS laws and regulations to operate or market UAS in the European Aviation Safety Agency (EASA) member states.<sup>18</sup> This creates an often unnecessary administrative burden on the industry, particularly on multinational organizations that have identical and safe operations throughout Europe. EASA seeks to change that framework, proposing to harmonize the rules for low-risk (*i.e.*, sUAS) and medium-risk operations, whether for commercial or recreational purposes, but it is leaving the regulation of high-risk operations to member states.

First published in August 2016, and with EASA having recently completed the second round of public comments, EASA’s proposed regulatory framework is operation-centric but also applies to non-operators in the industry (*i.e.*, manufacturers and distributors).<sup>19</sup> The proposed framework, which is largely based on the model by the Joint Authorities for Rulemaking on Unmanned Systems,<sup>20</sup> defines two categories of operations: (1) the Open category for low-risk operations, and (2) the Specific category for medium-risk operations. Existing operators that can easily fit within the Open category criteria and are currently required to get authorization from aviation authorities should welcome the proposed framework because EASA will not require operator approvals for Open category flights, with the exception of pilot competency certification or testing for certain operations.

Although the least burdensome from a regulatory approval perspective, the Open category criteria may be best characterized as a matrix of requirements and operating limitations. The type of operations (*e.g.*, operations over people)

corresponds to various risk-based limitations and requirements, including UAS weights, maximum altitudes, pilot competency, pilot age/supervision requirements, UAS registration, and technical requirements. The rules will also help operators determine the applicable criteria by requiring new UAS to be accompanied by markings and leaflets that define the UAS “Class” that corresponds to the applicable operating limitations and requirements.

The notable proposed change from most existing regulatory frameworks of individual states is the design requirements for UAS for certain subcategories of operation, as well as the imposition of related obligations that flow up the supply chain, from distributors, to importers, to manufacturers. In contrast, current regulatory frameworks focus on operator requirements. For example, an operator using a UAS that is less than 4 kg and in the proximity of uninvolved people must ensure that the UAS is equipped with an electronic identification system and a geo-fencing system.<sup>21</sup> EASA is seeking to address many concerns with these design criteria, including safety, law enforcement, security, and privacy. When marketing a UAS for a particular “Class,” manufacturers and importers will need to confirm the design’s compliance, while distributors will need to recall products that are non-compliant.

On the other hand, EASA has demonstrated the foresight to protect an industry that has undergone rapid technological development in the recent past, including many operations and technologies that fall outside of the Open category. Particularly, EASA created a few options for member states to allow such operations. First, member states will be able to create drone zones or no-drone zones. In these zones, member states may exempt operators from the regulatory requirements to allow for testing in appropriate low-risk areas or, to the contrary, impose additional restrictions or prohibitions where the member state has deemed a heightened safety, security, or privacy risk. These zones will be a valuable tool for member states, which are undoubtedly in a better position than EASA to assess the local interests and risks for UAS, and will allow for local growth in the UAS industry.

Second, EASA’s proposed Specific category, which covers most operations that do not fit into the Open category, will allow for medium-risk operations upon approval from a member state authority or upon a declaration that the operation meets the criteria of a pre-approved scenario. It is unclear, however, whether member states will be required to recognize the approvals from other member

---

states, which may lead some multinational operators back to the same patchwork of approvals they require now. Additionally, because the upper boundary of the Specific category remains undefined, operators may struggle to determine whether their operations meet the Specific category threshold for operations in a given state.

In sum, EASA's proposed framework should be welcomed by the UAS industry, facilitating operations and avoiding administrative burdens, particularly for sUAS. The European Commission's adoption is expected in the first quarter of 2018.

## **The Ongoing Challenges and Unsettled Legal Landscape**

### **Drone Privacy Concerns in the United States and Abroad**

As UAS numbers grow globally, questions of privacy are also increasing. Many individuals and organizations have raised UAS privacy concerns, which has caused many governments to factor privacy into their aviation regulations, and state and local governments to enact their own laws addressing the same.

In the United States, the FAA has typically avoided the issue of privacy altogether—generally leaving it to state and local governments to regulate.<sup>22</sup> Despite pressures from privacy organizations, the FAA did not include any privacy provisions in its Part 107 rule or in its model aircraft guidance. In its press release regarding the release of Part 107, the FAA stated that it “does not regulate how UAS gather data on people or property,” although it “encouraged UAS pilots to check local and state laws before gathering information through remote sensing technology or photography.”<sup>23</sup> The FAA often references the National Telecommunications and Information Administration multi-stakeholder process, which convened in 2016 to develop privacy best practices for UAS.<sup>24</sup>

One interest group, the Electronic Privacy Information Center (“EPIC”), has repeatedly pressured

the FAA on privacy issues and is taking the FAA to court to challenge its lack of action. In 2012, EPIC petitioned the FAA to establish privacy protections, but

**The FAA has generally left privacy to state and local governments to regulate.**

the FAA denied the request. Similarly, in 2015, EPIC again challenged the lack of privacy protections in relation to the notice of proposed rulemaking for what would become Part 107. The FAA again demurred, stating that privacy issues “are beyond the scope of this rulemaking.”<sup>25</sup> Once the FAA finalized Part 107, EPIC challenged the FAA’s failure to address privacy. *EPIC v. FAA* is pending before the U.S. Court of Appeals for the D.C. Circuit, and briefs and arguments are expected this fall.<sup>26</sup>

In June 2017, the FAA created an aviation rulemaking committee that is tasked with establishing standards for identifying and tracking UAS during operations. The tracking and identification of UAS is a key privacy component because it permits the public to know the UAS operator, the UAS location, and its purpose. This will facilitate the enforcement of state and local rules on privacy, such as “peeping tom” laws.

Congress, which has also been relatively silent on the issue of UAS privacy, is looking to address the issue in the FAA reauthorization bill. The House version of the bill requests a DOT study regarding the potential for UAS to reduce privacy.<sup>27</sup> The Senate version goes further.<sup>28</sup> It incorporates a similar DOT study, urges Part 107 operators to promulgate UAS privacy policies, authorizes the Federal Trade Commission to enforce such policies, and requires the FAA to publicize details of government and commercial UAS operations permitted in the NAS.

## UAS Privacy in Europe

The EU is also feeling pressure to address citizens’ concerns about potential privacy breaches. Unlike the United States, the EU regulators addressed privacy in their new UAS rulemaking. For example, the EASA rules require a suite of privacy protections, including geo-fencing software to prevent operations in certain locations, remote identification of UAS, and a registration requirement for all drones over 250 grams in mass. EASA member states also address privacy concerns through national laws related to UAS with cameras and by setting up no-drone zones. For example, the United Kingdom currently has laws prohibiting UAS with cameras from flying within fifty meters of a person, structure, or vehicle, or within 150 meters of congested areas.

## Preemption and Federalism Issues

As UAS become increasingly common throughout the United States, the FAA has been challenged with a barrage of state and local laws that regulate the time, place, and manner of UAS operations. Regardless of this influx of state and local laws, the FAA has remained steadfast in its claim that federal preemption over aircraft operations prevents regulation by any other government. For example, the FAA's guidance regarding the scope of permissible state regulation only approves regulations based on a state's traditional police powers—such as requiring warrants for UAS searches, prohibiting voyeurism via UAS, prohibiting harassment of hunters or animals with UAS, and prohibiting attaching firearms or weapons to a UAS.<sup>29</sup> The FAA makes clear that state and local regulations relating to the UAS operations themselves, such as locations for operation, height, speed, etc., are wholly in the FAA's purview. A recent federal court decision confirmed the FAA's position when the court overturned portions of a Newton, Massachusetts, UAS law restricting operations over both public and private property and requiring local UAS registration.<sup>30</sup> The judge in the Newton case determined that federal statutes and FAA's regulations preempted conflicting local provisions related to UAS registration and operating restrictions.

The federalism and preemption issues are also being contemplated in Congress with proposed legislation that would strip the FAA's authority over certain low-altitude UAS operations. A Senate bill, the Drone Federalism Act of 2017, would give state and local governments authority to “issue reasonable restrictions on the time, manner, and place of operation of a civil unmanned aircraft system that is operated below 200 feet above ground level or within 200 feet of a structure.”<sup>31</sup>

## **Governmental bodies are at odds over where the regulatory authority should reside.**

According to the legislation, those state and local restrictions could include: limits on speed, location, and operating time; and other “prohibitions that protect public safety, personal privacy, or property rights, or that manage land use or restrict noise pollution.”<sup>32</sup>

As the FAA reauthorization legislation continues to work its way through Congress, Congress will have to grapple with these issues. The federalism debate in the United States—where Congress is considering giving additional authority to the state government—is the opposite of the trend in the EU, where EASA is centralizing and unifying regulations across the continent.

## Conclusion

Regulation of UAS in the United States and the EU is at a turning point as many stakeholders seek additional power over UAS regulatory regimes. Operators want the freedom to undertake more complex flights; regulators want to ensure the highest levels of safety; many in the general public want additional privacy assurances; and governmental bodies are at odds over where the regulatory authority should reside. These divisions are the hallmarks of an evolving, growing industry, and aviation law writ large needs to be aware of the shifting legal complexities in UAS airspace.

---

This article is based on the PLI One-Hour Briefing [Unmanned Aircraft Systems: The Evolving Legal Landscape](#), by Kenneth P. Quinn and Jennifer Trock.

---

## NOTES

1. *Taylor v. Huerta*, 856 F.3d 1089 (D.C. Cir. 2017).
2. FED. AVIATION ADMIN., FAA AEROSPACE FORECAST: FISCAL YEARS 2017–2037 at 31–32 (2017), [www.faa.gov/data\\_research/aviation/aerospace\\_forecasts/media/FY2017-37\\_FAA\\_Aerospace\\_Forecast.pdf](http://www.faa.gov/data_research/aviation/aerospace_forecasts/media/FY2017-37_FAA_Aerospace_Forecast.pdf); *see also* M. Huerta, Administrator, Fed. Aviation Admin., Speech, White House Drone Day (Aug. 2, 2016), [www.faa.gov/news/speeches/news\\_story.cfm?newsId=20594&omniRss=speechesAoc&cid=104\\_Speeches](http://www.faa.gov/news/speeches/news_story.cfm?newsId=20594&omniRss=speechesAoc&cid=104_Speeches).
3. 14 C.F.R. § 107 (2016).
4. *Id.* § 107.3 (2016).
5. *Id.* §§ 107.31, 107.39, 107.29, 107.51 (2016).
6. *Id.* § 107.41 (2016).
7. *Id.* § 107.205 (2016).
8. *Waiver Safety Explanation Guidelines for Part 107 Waiver Applications*, FED. AVIATION ADMIN. (Aug. 2, 2017), [www.faa.gov/uas/request\\_waiver/waiver\\_safety\\_explanation\\_guidelines/](http://www.faa.gov/uas/request_waiver/waiver_safety_explanation_guidelines/).
9. *Part 107 Waivers Granted*, FED. AVIATION ADMIN. (Sept. 25, 2017), [www.faa.gov/uas/request\\_waiver/waivers\\_granted/](http://www.faa.gov/uas/request_waiver/waivers_granted/).
10. *See* 14 C.F.R. § 107.29 (2016).
11. *August 2017 Significant Rulemaking Report*, U.S. DEP'T OF TRANSP., <https://cms.dot.gov/regulations/august-2017-significant-rulemaking-report> (last visited Sept. 25, 2017).
12. *See* Pub. L. No. 112-95, § 336(c), 126 Stat. 11 (2012) (providing that a model aircraft is an unmanned aircraft that is: (1) capable of sustained flight in the atmosphere; (2) flown within visual line of sight of the person operating the aircraft; and (3) flown for hobby or recreational purposes).
13. *See id.* § 336(a) (requiring that the aircraft be flown strictly for recreational purposes, be operated in accordance with community-based safety guidelines, be under fifty-five pounds, and give way to manned aircraft, and that the operator notify airports of the flight).
14. *Id.*
15. Press Release, Fed. Aviation Admin., FAA Announces Small UAS Registration Rule (Dec. 14, 2015), [www.faa.gov/news/press\\_releases/news\\_story.cfm?newsId=19856](http://www.faa.gov/news/press_releases/news_story.cfm?newsId=19856).
16. *Taylor*, 856 F.3d at 1092.
17. Both the House and Senate versions of a long-term FAA Reauthorization bill include language that would either directly overturn *Taylor* or allow the FAA to reissue the rule. *See infra* notes 27 and 28.
18. EASA is a European Union agency tasked with implementing rules, approving products and organizations, and providing oversight and support to member states in the field of civil aviation.
19. *See* European Aviation Safety Agency, Notice of Proposed Amendment 2017-05 (A), [www.easa.europa.eu/system/files/dfu/NPA%202017-05%20%28A%29\\_0.pdf](http://www.easa.europa.eu/system/files/dfu/NPA%202017-05%20%28A%29_0.pdf).
20. The Joint Authorities for Rulemaking on Unmanned Systems (JARUS) is a group of experts from national aviation authorities and regional aviation safety organizations. Its purpose is to

- recommend a single set of technical, safety, and operational requirements for the certification and safe integration of UAS into airspace and at aerodromes. The objective of JARUS is to provide guidance material aiming to facilitate each authority to write its own requirements and to avoid duplicate efforts. JARUS, <http://jarus-rpas.org/> (last visited Sept. 25, 2017).
21. Geo-fencing is programming or other virtual mechanism that creates geographic boundaries for the operation of drones, including permitted and prohibited operating areas.
  22. FED. AVIATION ADMIN., STATE AND LOCAL REGULATION OF UNMANNED AIRCRAFT SYSTEMS (UAS) FACT SHEET 3 (Dec. 17, 2015) [hereinafter FAA GUIDANCE], [www.faa.gov/uas/resources/uas\\_regulations\\_policy/media/UAS\\_Fact\\_Sheet\\_Final.pdf](http://www.faa.gov/uas/resources/uas_regulations_policy/media/UAS_Fact_Sheet_Final.pdf) (stating that “laws traditionally related to state and local police power—including land use, zoning, privacy, trespass, and law enforcement operations—generally are not subject to federal regulation”).
  23. Press Release, Fed. Aviation Admin., DOT and FAA Finalize Rules for Small Unmanned Aircraft Systems (June 21, 2016), [www.faa.gov/news/press\\_releases/news\\_story.cfm?newsId=20515](http://www.faa.gov/news/press_releases/news_story.cfm?newsId=20515).
  24. See *Multistakeholder Process: Unmanned Aircraft Systems*, NAT’L TELECOMMS. INFO. ADMIN. (June 21, 2016), [www.ntia.doc.gov/other-publication/2016/multistakeholder-process-unmanned-aircraft-systems](http://www.ntia.doc.gov/other-publication/2016/multistakeholder-process-unmanned-aircraft-systems).
  25. Final Rule, Operation and Certification of Small Unmanned Aircraft Systems, 81 Fed. Reg. 42,190 (June 28, 2016).
  26. See Petition for Review, Elec. Privacy Info. Ctr. v. FAA, Case No. 16-1297 (D.C. Cir. Aug. 22, 2016), <https://epic.org/privacy/litigation/apa/faa/drones/EPIC-Petition-08222016.pdf>; see also *EPIC v. FAA: Challenging the FAA’s Failure to Establish Drone Privacy Rules*, EPIC, <https://epic.org/privacy/litigation/apa/faa/drones/> (last visited Sept. 25, 2017).
  27. 21st Century AIRR Act, H.R. 2997, 115th Cong (2017).
  28. Federal Aviation Administration Reauthorization Act of 2017, S. 1405, 105th Cong. (2017).
  29. FAA GUIDANCE, *supra* note 22, at 3.
  30. *Singer v. Newton*, No. 1:17-cv-10071, slip op. (D. Mass. Sept. 21, 2017).
  31. S. 1272, 115th Cong. § 2(b)(1) (2017).
  32. *Id.* § 2(b)(2)(A)–(F).
-

# The Current

## The Journal of PLI Press

---

Vol. 1, No. 2, Autumn 2017

## New Methods for Delivery of Entertainment

**Robert E. Freeman\***

*Proskauer LLP*

### **Evolving Content Distribution Platforms: Where We've Been and Where We Are Going**

Gone are the days of the printing press, analog radios, and home telephones. Today, we live in a world consumed by smartphones, laptops, tablets, smart appliances, and wearables. While these new technologies have led to unprecedented levels of efficiency and connectivity, they have also added significant complexity to the legal landscape with regard to content distribution.

---

\* This article was prepared by Robert E. Freeman, a Partner and Co-Chair of the Technology, Media & Telecommunications Group at Proskauer LLP, with able assistance from his colleagues Jonathan Mollod and Charles Peskowitz.

To see how far we have come in the content distribution space, it is instructive to first provide a brief history of content distribution platforms, as well as take note of a few seminal cases that have provided the legal doctrinal framework within which new technologies and distribution platforms now operate.

## Player Pianos and Music Boxes

Today, interactive music streaming services such as Spotify, SoundCloud, and Apple Music lead the market for on-demand music consumption. However, the desire for music “on demand” is not new. Around the turn of the twentieth century, a technological precursor to these services was introduced to the U.S. market in the form of player pianos. This revolutionary technology allowed users to insert a music roll (similar to a punch card) into the piano, and the piano would play the music printed on the roll.<sup>1</sup>

The player piano followed in the footsteps of the music box—a mechanical musical instrument operated by a watch spring that was “sounded when tuned metal prongs . . . mounted in a flat comb [were] made to vibrate by contact with a revolving cylinder.”<sup>2</sup> Before the advent of devices such as these, if an individual (or more likely a bar or other social establishment, given the cost of these technologies) wanted to listen to music, that individual or establishment would have to produce that music itself, or pay for a live performance. Distribution platforms such as player pianos and music boxes forever changed the music world—providing a means for users to listen to music without requiring a live performance.

The mechanical reproduction of musical compositions, while redefining how music could be consumed, also created the question of whether royalties were owed to musical composition copyright holders whose songs were played by these machines. This question was answered by the Supreme Court in 1908, in the seminal case of *White-Smith Music Publishing Co. v. Apollo Co.*<sup>3</sup>

**Player pianos were instrumental in redefining preconceived notions of how music could be consumed.**

In *White-Smith*, musical composition copyright holders argued that music rolls used by player pianos were no different from traditional sheet music, and thus the mechanical reproductions produced by player pianos should fall within the

scope of the exclusive rights granted by the Copyright Act. In rejecting the plaintiffs' argument, the Supreme Court held that the music rolls read by player pianos were “parts of a machine,” rather than copies, and as a result, royalties needed not be paid for their use.<sup>4</sup> The Court distinguished music rolls from traditional sheet music on the basis that music rolls were read by a machine, rather than by a human—a distinction that has since been expressly rejected by Congress.<sup>5</sup>

While player pianos were revolutionary for their time, their popularity was relatively short-lived. Player pianos were instrumental in redefining preconceived notions of how music could be consumed, but they were unable to truly revolutionize the content distribution market because of their limited utility and accessibility. However, the advent of the player piano foreshadowed the coming of future technological innovations.

### **Analog/Terrestrial Radio**

One of these groundbreaking technological innovations came in the early 1920s in the form of analog radio. Radios enabled broadcasters to transmit radio wave signals to millions of listeners simultaneously—effectively taking the private

**Analog radio technology has  
helped pave the way for the  
interactive streaming services  
we now know today.**

performance of the player piano and transforming it into a public performance that could be consumed by several individuals at once. The technology behind analog radio is relatively simple, but it has helped pave the way for the interactive streaming services that we now know today.

Terrestrial radio involves two parts: a receiver and a transmitter. The transmitter sends radio waves to the receiver in one of two forms of modulation: amplitude modulation (AM) or frequency modulation (FM). The two forms of modulation differ with regard to frequency range, number of frequencies, and transmitter power.<sup>6</sup>

This new medium was a goldmine for both broadcasters and advertisers alike who wanted to reach large audiences. However, as is often the case in the technology sector, the technology of the radio had outpaced the existing legislative framework—leaving courts and lawmakers to wrestle with how to address copyright, First Amendment, and other legal issues in the context of this new distribution platform.

In contrast to the judge-made law surrounding player pianos, in the case of radio technology, Congress took the lead, passing the Radio Act of 1927, which created the Federal Radio Commission (FRC)—a regulatory agency responsible for granting broadcast licenses. (This statute has since been repealed by the Communications Act of 1934, which created the Federal Communications Commission (FCC).)<sup>7</sup>

After establishing a regulatory regime responsible for balancing First Amendment concerns associated with the radio, the next issue to be resolved was royalties. The daunting task of developing an adequate licensing scheme was resolved relatively early on in radio's history by the creation of performance rights organizations (PROs) such as ASCAP.<sup>8</sup> These organizations contracted with copyright owners for the musical composition copyrights, and in turn, the PROs granted blanket licenses to radio stations for the public performance rights of the copyrighted songs.<sup>9</sup>

This PRO-facilitated licensing scheme was one of the most notable consequences of radio broadcasting technology. It allowed radio stations to overcome the otherwise insurmountable transaction costs associated with receiving a license from each individual copyright owner.<sup>10</sup> By granting blanket licenses, PROs reduced transaction costs for broadcasters and ensured compensation for the copyright owners.<sup>11</sup> While analog radios are increasingly becoming relics of the past, the licensing arrangement created in response to radio technology continues to live on today in other areas of the content distribution ecosystem, including in television and the Internet.

Despite the progress it has promoted, this PRO-based licensing scheme has not come without criticism. One of the most prominent criticisms has come from the record industry, which is currently lobbying Congress to include sound recording copyright owners in this statutory licensing scheme. As it stands now, sound recording copyright owners (primarily record labels) do not receive any royalties from radio broadcasters that play their songs.<sup>12</sup>

---

The current licensing arrangement for sound recording copyright owners is slightly more complicated than that for musical composition copyright owners. For sound recordings, statutory licenses only apply to specific “non-interactive” digital music services (such as free webcasts and simulcasts), while interactive

## **The licensing arrangement created in response to radio technology lives on today in other areas of the content distribution ecosystem.**

music services (such as Spotify or Apple Music) must obtain a license directly from the copyright holder.<sup>13</sup> The rates for the statutory licenses are set by the Copyright Royalty Board and administered by an entity called SoundExchange.<sup>14</sup>

Lastly, it is worth noting that the Department of Justice (DOJ) has recently filed an appeal in the Second Circuit in a case regarding the PRO licensing scheme. The DOJ argues that the lower court incorrectly interpreted a longstanding anti-trust agreement among the PROs to allow for “fractional licensing” (licensing only the portion of a work that a PRO’s member owns rather than “full work” licenses of the entire work or composition regardless of joint ownership).<sup>15</sup> The Second Circuit has yet to rule on the case, but this appeal is merely further evidence that the PRO licensing scheme, while helpful in reducing transaction costs, is not without controversy.

### **Television**

The introduction of commercial television in the late 1940s continued the natural technological progression, providing users with a visual experience to enhance content that was previously only accessible via radio broadcasts.

Unlike analog radio technology, which has remained fairly stagnant over time, television has gone through a series of transformations over the course of its history. Early television technology involved a process very similar to radio—broad-

casting companies transmitted a signal over the airwaves that was picked up by an antenna on the user's television set.<sup>16</sup> Although this technology closely mirrored radio broadcasting technology, television broadcasts would prove to be the source of far more legal challenges than its radio predecessor.

One of the earliest Supreme Court cases involving television technology concerned community antenna television (CATV).<sup>17</sup> CATV operators "received, amplified, and modulated broadcast signals from television stations, converted them to different frequencies, and transmitted the signals to CATV subscribers" via coaxial cables, strung on utility poles<sup>18</sup>—essentially serving as a large antenna to allow broadcast signals to reach more television sets. The issue with this technology was that only the television stations had a license to broadcast the televised content. As a result, whether CATV providers were liable for copyright infringement when they picked up the broadcast signals and retransmitted them to subscribers without a license from the broadcasters hinged on whether the Supreme Court interpreted this service as constituting a "public performance" under the Copyright Act.

In *Fortnightly Corp. v. United Artists Television, Inc.*, the Supreme Court held that CATV providers, which "neither edited the programs received nor originated any programs of [their] own," but rather simply amplified existing broadcast signals, were more analogous to viewers than broadcasters.<sup>19</sup> In the early years of broadcast television, this viewer/broadcaster distinction was dispositive. According to the Court, "Broadcasters perform. Viewers do not perform."<sup>20</sup> Thus, by characterizing CATV providers as "viewers" within the viewer/broadcaster framework, the Court was able to justify its holding that CATV transmissions did not constitute "public performances" under the Copyright Act.<sup>21</sup>

The holding in *Fortnightly* was broadened six years later in *Teleprompter Corp. v. Columbia Broadcasting*, when the Supreme Court held that CATV transmissions were not public performances, regardless of whether the CATV system was transmitting a "local signal" or a "distant signal."<sup>22</sup> Read together, the Supreme Court's holdings in *Fortnightly* and *Teleprompter* combined to establish a bright-line rule, deeming CATV a non-infringing transmission.

The Supreme Court's decisions in *Fortnightly* and *Teleprompter* can perhaps be best understood as a product of the Court's attempting to create law for a new technology that was not yet fully understood. In analyzing CATV technology, the Court tried to conceptualize the technology within the preexisting viewer/

---

broadcaster framework and found that broadcasters required a license to transmit broadcast signals, while CATV providers did not. This was obviously a questionable distinction. The disparate treatment between these two technologies was relatively short-lived, however, as Congress rejected any such distinction between cable and broadcast technologies in the Copyright Act of 1976.

The amended Copyright Act clarified that “performing” an audiovisual work means to “show its images in any sequence or to make the sounds accompanying it audible.”<sup>23</sup> This language eliminated the viewer/broadcaster distinction that had been embraced by the Court in *Fortnightly* and *Teleprompter* by making clear that *both* the viewer and the broadcaster “perform” the work for purposes of the Copyright Act. Moreover, Congress enacted the Transmit Clause in the amended act, which states that an entity performs “publicly” when it “transmit[s] or otherwise communicate[s] a performance or display of the work . . . to the public.”<sup>24</sup> The Copyright Act further defines “transmit” as “to communicate [a performance] by any device or process whereby images or sounds are received beyond the place from which they are sent.”<sup>25</sup> Lastly, the amended Copyright Act included a detailed compulsory licensing scheme that cable companies must abide by in order to retransmit broadcasts in accordance with the Act.<sup>26</sup>

This legislation reversed the Supreme Court’s previous decisions regarding cable television technology and provided some much-needed clarity to the legal landscape surrounding the distribution of television content. However, this increased clarity was only temporary. It was only a matter of time before a new distribution platform would emerge that would push the boundaries of content distribution.

### **Video Cassette Recorders (VCRs)**

In the days before TiVo, DVR, and on-demand content, consumers were at the mercy of the television networks. If people wanted to watch a particular show, they had to be in front of their television sets at the time determined by the network for that show to be broadcast. This business model gave networks the extraordinary power to dictate the specific time that individuals could consume content. However, with the introduction of the video cassette recorder (VCR), consumers were able to take control of their viewing schedules.

In 1982, Jack Valenti, then-president of the Motion Picture Association of America, famously stated, “I say to you that the VCR is to the American film pro-

---

ducer and the American public as the Boston strangler is to the woman home alone.”<sup>27</sup> The introduction of VCRs playing “video home system” (VHS) tapes (as well as machines running the competing videotape format Betamax) into American homes initially caused mass hysteria in the television and movie

## **The *Sony* ruling suggested that the Court was shifting in favor of technological innovation over artists’ rights protection.**

industries, as they worried that these technologies would replace consumer demand for live television and the cinema. In an effort to thwart this perceived changing of the guard, the motion picture industry filed a copyright infringement suit against one of the largest video tape recorder manufacturers in the world (Sony), which sold the Betamax VCR, claiming that the mere sale of this equipment was sufficient to establish copyright infringement liability.<sup>28</sup>

In the seminal case of *Sony Corp. of America v. Universal City Studios, Inc.* (also known as the “Betamax case”), the Court applied the “staple article of commerce doctrine” from patent law to find that video tape recorder manufacturers could not be liable for copyright infringement solely on the basis of distribution, so long as the machines were capable of “substantial noninfringing uses.”<sup>29</sup> In addition to introducing the staple article of commerce doctrine into copyright law, the *Sony* ruling also established important precedent in holding that noncommercial home use recording of material broadcast over the public airwaves (*i.e.*, time-shifting) for purposes of private home viewing was fair use.<sup>30</sup>

Except in cases of inducement liability, the Supreme Court’s ruling in *Sony* established a safe harbor for device manufacturers, who can now rely on the staple article of commerce doctrine to avoid liability.<sup>31</sup> The introduction of this doctrine into copyright law by the Supreme Court suggested that the Court was shifting

in favor of technological innovation over artists' rights protection—however, several post-*Sony* cases have made clear that the debate between these two opposing concerns is still very much unsettled.

### New Uses in Licensing Agreements

One of the main areas in which the “innovation versus authors’ rights protection” debate has played out has been in the context of “new uses” in licensing agreements. Just as the Supreme Court was forced to decide new technology cases using outdated language in the Copyright Act, courts have been repeatedly forced to decide whether new technology falls within the four corners of a preexisting licensing agreement.

One of the seminal cases regarding new uses in licensing agreements arose out of the Second Circuit in *Boosey & Hawkes Music Publishers, Ltd. v. Walt Disney Co.*<sup>32</sup> In *Boosey*, the parties had a licensing agreement that allowed the licensee (Disney) to use certain musical works in a “motion picture.”<sup>33</sup> The issue in the case was whether Disney’s right to use the musical works in a motion picture extended to using the music “in video cassette and laser disc format (‘video format’) of the film ‘Fantasia,’” or whether such a video format release breached the original 1939 license.<sup>34</sup> Ultimately, the court held that if a contract could reasonably be read to include the new use, then the license covered distribution in video format.<sup>35</sup>

## **Courts often attempt, within the bounds of copyright law, to avoid stifling innovation.**

Although the *Boosey* court claimed to be using neutral principles of contract interpretation to come to its conclusion, a telling footnote in the opinion suggests that this decision was at least partially policy driven. In footnote 4 of the opinion, the court notes that “an approach to new-use problems that tilts against licensees gives rise to antiprogressive incentives.”<sup>36</sup> In other words, in terms of balancing authors’ rights against the benefits of technological innovation, the court’s deci-

---

sion in *Boosey* reflects a thumb on the scale in favor of innovation—a trend that has continued to live on in many new technology cases.

The Second Circuit revisited the new-use problem in 2002 in the case of *Random House, Inc. v. Rosetta Books LLC*.<sup>37</sup> In *Random House*, the new technology at issue was that of e-books. The relevant licensing agreement gave plaintiffs the right to reproduce certain novels “in book form,” and the issue was whether e-books could be covered by this language.<sup>38</sup> In finding that this new use was *not* covered by the contract, the district court distinguished this case from *Boosey* by highlighting the fact that e-books and printed books are entirely different media (as opposed to motion pictures and videos),<sup>39</sup> and the fact that there is no concern about antiprogressive incentives in this case, as “it cannot be said that licensees such as book publishers and movie producers are ipso facto more likely to advance digital technology than start-up companies.”<sup>40</sup>

*Boosey* and *Random House*, although coming to different conclusions regarding whether licensing agreements should be read in favor of licensees or licensors, reflect a common theme: in an age of rapid technological development, courts often attempt, within the bounds of copyright law, to avoid stifling innovation.<sup>41</sup> However, as technology becomes more advanced and the trend towards more user-generated content continues, the dichotomy between authors’ rights and innovation incentives continues to blur.

## Online Streaming Services

Recently, the technology that has had the greatest impact on society has been the Internet. The Internet has ushered in a new age of content distribution and offers unprecedented consumer choice—forcing the Supreme Court, yet again, to decide how to conceptualize a new technology within an old legislative framework. To date, the seminal case in this regard is *American Broadcasting Companies v. Aereo, Inc.*<sup>42</sup> In *Aereo* the Supreme Court was confronted with the issue of whether Aereo’s online video streaming service, which assigned a specific antenna to each individual subscriber, constituted a “public performance” under the Copyright Act.<sup>43</sup>

Aereo’s technology attempted to escape the purview of the Copyright Act by using thousands of tiny antennas to pick up free over-the-air broadcasts and assigning each antenna to a specific subscriber—thus arguably making each transmission of a work a “private” performance.<sup>44</sup> Under a strict reading of the Copy-

---

right Act, Aereo's business model arguably appeared not to have violated any copyright law: Aereo did not engage in any volitional activity to initiate the copying of a copyrighted work (the user initiated the copying), and each individual transmission was only sent to one individual user. However, to the great relief of broadcasters, the Supreme Court did not endorse this view.

Rather than focusing on the nuances of Aereo's technology, the Supreme Court used a test characterized by Justice Scalia in dissent as a "looks-like-cable-TV" test, to find that Aereo's system constituted a public performance under the Copyright Act.<sup>45</sup> Although the Court noted one significant difference between Aereo and CATV—the fact that CATV provided a constant transmission to each subscriber, while Aereo's system "remain[ed] inert until a subscriber indicate[d] that she want[ed] to watch a program"<sup>46</sup>—the Court nonetheless held that Aereo's technology was too similar to CATV to fall outside the scope of the Copyright Act.

The most significant question created by the *Aereo* decision is whether lower courts will strictly adhere to the Supreme Court's interpretation of the Transmit Clause. If lower courts do strictly follow this approach, some commentators are concerned that *Aereo* may have the effect of stifling innovation and reverse the recent trend towards more online streaming and cloud-based services.<sup>47</sup> Under the Court's interpretation of the Transmit Clause in *Aereo*, the "performance" being transmitted is the underlying work (for example, an episode of the show *Seinfeld*), and thus Aereo was engaging in a public performance by allowing multiple people to consume that underlying work.<sup>48</sup> Aereo's argument in response, which was based largely on the holding by the Second Circuit in *Cartoon Network v. CSC Holdings, Inc.*, was that the "performance" was the individual transmission being sent to a single user.<sup>49</sup>

In rejecting Aereo's argument, the Supreme Court, in theory, cast some doubt on the legality of the entire business model of cloud computing. Cloud computing is a decentralized storage system, in which information is stored on the Internet, rather than on a local hard drive.<sup>50</sup> If millions of people each store their own copy of a recent pop song in the cloud and then stream it over the Internet, then users may be engaging in essentially the same conduct that the Supreme Court deemed covered by the Copyright Act in *Aereo* (absent any considerations of fair use).<sup>51</sup> Importantly, the Court in *Aereo* made sure to qualify its holding as a "limited" one, in which it was not expressing an opinion on the legality of any other new technologies. In response, courts, in several instances, have limited

---

*Aereo*'s holding to its facts and have declined to interpret it to have eliminated by implication the “volitional conduct” requirement for direct liability under the Copyright Act.<sup>52</sup>

## The Future of Content Distribution

While it's impossible to predict exactly how content distribution platforms will look going forward, some trends are likely to continue. For example, traditional cable television services are likely to continue to adapt and compete with an ever-increasing number of over-the-top (OTT) content services. OTT is “any app or service that provides a product over the Internet and bypasses traditional distribution.”<sup>53</sup> Examples of OTT providers include Netflix, Hulu, and Sling TV.

The recent proliferation of OTT providers is a reflection of the continued evolution of content distribution. Tellingly, a 2016 Nielsen survey indicated that among individuals between the ages of twenty-one and thirty-four, 38% of respondents said they plan to cancel their cable or satellite subscription and replace it with online video services.<sup>54</sup> Studies such as these, combined with a steady, slow decline in cable subscriptions, are forcing cable companies to adapt by offering more and more “skinny bundles,” rather than relying solely on larger bundled packages.<sup>55</sup>

In terms of consumer demand, the trend is clearly pointing towards an increase in on-demand content that can be immediately accessed on multiple devices. In order to service this demand, content in all forms—whether it be games, movies, or apps—is being transferred to the cloud in an effort to make that content more widely accessible. This new technology may face increased legal scrutiny after the *Aereo* decision, but from solely a technological perspective, cloud-based systems will undoubtedly be the way of the future. The only question is how the law will respond.

## Protection of Content in the Digital World

### Early Examples of Technological Protections

Finding the proper balance between the rights of copyright owners and the rights of users of copyrighted works has proven challenging. As discussed above, the Supreme Court's decision in *Sony* was a referendum on the future of copyright protection in the new digital age.

---

In response to the *Sony* decision, the motion picture industry took steps to increase protection for its copyrighted works outside of the Copyright Act. In the 1980s, the motion picture industry developed a form of digital rights management (DRM), which sought to impose additional barriers against unauthorized uses of copyrighted works. This DRM came in the form of a technology called Macrovision, which prevented unauthorized copying of prerecorded videocassettes containing copyrighted motion pictures.<sup>56</sup>

Following the lead of the motion picture industry, cable and satellite broadcasters also began to invest in DRM in the 1980s in an effort to prevent unauthorized reception of broadcast signals by viewers that had not paid for a subscription service. One of the earliest iterations of DRM in the television industry came in the form of encryption technology called VideoCipher II (the original VideoCipher was quickly taken off the market due to security vulnerabilities).<sup>57</sup>

VideoCipher II—sold by General Instrument Corp. (the largest producer of cable TV set-top boxes in the United States before being acquired by Motorola for \$17 billion in January 2000)<sup>58</sup>—included both scrambling and descrambling equipment and became the “*de facto* industry standard” for satellite television scrambling during the late ’80s and early ’90s.<sup>59</sup> VideoCipher II equipment prevented unauthorized access to broadcast signals by scrambling the signals and then descrambling them once the satellite-dish owner paid a monthly fee to the cable networks.<sup>60</sup> In the late 1990s, broadcasters began the move from analog feeds to digital transmissions (DTV),<sup>61</sup> and VideoCipher II (and its successor, VideoCipher II Plus) slowly became obsolete.

Not to be outdone, the computer software industry also participated in this DRM-centered campaign against unauthorized copying and distribution of copyrighted works. In the 1980s, the software industry began equipping its software with copy-protection devices that prevented users from creating back-up copies of floppy disks containing the software and from loading software programs onto hard-disk storage.<sup>62</sup> Unfortunately for the computer software industry, these DRM devices were met with widespread consumer backlash—leading to software companies quickly abandoning these primitive forms of DRM in search of more practical solutions.<sup>63</sup>

---

## Digital Millennium Copyright Act (DMCA) Background

Two things became clear from the DRM movement in the 1980s. First, the model of each industry independently attempting to implement the most effective DRM protection without coordinating with other industries was no longer feasible. Anti-circumvention technology was becoming far too advanced for each industry to try to tackle the issue on its own. Second, the introduction of DRM had initiated an “arms race” between copyright owners’ DRM and users’ anti-circumvention measures, necessitating some sort of comprehensive legislation to set the ground rules.

This comprehensive legislation came in the form of the Digital Millennium Copyright Act of 1998 (DMCA).<sup>64</sup> The DMCA was the product of an intense bargaining process between copyright owners, who argued that new technology (particularly the Internet) posed an unprecedented threat to their ability to enforce their copyrights, and users of copyrighted works, who worried that DRM measures could be abused by restricting access to uncopyrightable ideas and public-domain works.<sup>65</sup> In order to appease the competing interests impacted by this legislation, Congress drafted a bill that is lengthy and technical, requiring a detailed analysis to fully understand the statutory text.

Before delving into the weeds of the text, it is useful to first highlight two important distinctions made in the DMCA. The first distinction is between technological protection measures that control *access* to a copyrighted work (access-control measures) (section 1201(a)) and technological protection measures that protect “a right of a copyright owner under [the Copyright Act]” (*copying* control measures) (section 1201(b)). The second important distinction is between *individual* circumvention of a technological protection measure and *trafficking* in an anti-circumvention device—the former only being prohibited in cases involving access control measures, the latter always being prohibited, irrespective of what type of control measure the device is designed to circumvent.<sup>66</sup>

The difference between the two categories of technological protection measures is best illustrated with an example: If a movie is encrypted on a DVD, preventing the user from watching the movie without the key to the encryption, then this form of DRM would be considered an access-control measure. The DRM is intended to deny the user access to the work entirely.<sup>67</sup> On the other hand, if the

---

DRM merely prevents the content on the DVD from being *copied* (*i.e.*, preventing one of the copyright owner's rights under the Copyright Act from being violated), then that DRM would be considered a copying control measure.

## **Circumvention is not infringement, merely a new cause of action under which a defendant may be liable.**

This distinction was included in the DMCA to address the concerns surrounding issues such as fair use and access to works in the public domain.<sup>68</sup> If the DRM is categorized as a “copying control measure,” the DMCA does not prohibit individuals from circumventing that DRM, as such circumvention may be done for purposes of fair use. Meanwhile, if the circumvention is done for infringing purposes, then section 106 of the Copyright Act would already protect the copyright owner, so resort to the DMCA would not be necessary. It should also be noted that the DMCA's anti-circumvention provisions do not establish a new property right. Circumvention is not infringement, merely a new cause of action under which a defendant may be liable.

### **Analyzing the Statutory Text**

In terms of protecting digital content, the most relevant section of the DMCA is section 1201; it contains the anti-circumvention provisions that provide remedies for the circumvention of access control and copying control measures. Before turning to how the courts have interpreted this section of the DMCA, it is necessary to examine some of the statutory text.

With regard to access control measures, section 1201(a)(1) provides in pertinent part that “[n]o person shall circumvent a technological measure that effectively controls access to a work protected under [the Copyright Act].”<sup>69</sup> A copying control measure, on the other hand, is described in the statute as a measure that “in the ordinary course of its operation, prevents, restricts, or otherwise limits the exercise of a right of a copyright owner under [the Copyright Act].”<sup>70</sup>

Under the statute, to “circumvent a technological measure” means “to descramble a scrambled work, to decrypt an encrypted work, or otherwise to avoid, bypass, remove, deactivate, or impair a technological measure, without the authority of the copyright owner.”<sup>71</sup> A technological measure that “effectively controls access to a work” is one that “in the ordinary course of its operation, requires the application of information, or a process or a treatment, with the authority of the copyright owner, to gain access to the work.”<sup>72</sup>

In addition to specifically prohibiting the circumvention of access control measures, the DMCA includes a blanket prohibition on the trafficking “in any technology, product, service, device, component, or part thereof” that is primarily designed to circumvent a technological protection measure, or that “has only limited commercially significant purpose or use” other than to circumvent a technological protection measure.<sup>73</sup> This “device ban” has been considered by some to be “the true heart of the anti-circumvention provisions of the DMCA,” and critics of the DMCA have opined that a broad reading of this provision could have adverse effects on competition and innovation.<sup>74</sup> Indeed, potential lawful or fair use is not a defense to a section 1201(a) trafficking claim when its requirements are established.<sup>75</sup> Furthermore, some fear that a broad reading of this provision could have the regressive effect of reversing the *Sony* decision by imposing liability on device manufacturers whose products have the potential to circumvent DRM measures.

In order to alleviate some of the concerns regarding access to information and anticompetitive effects, section 1201 contains a number of specific exemptions from the anti-circumvention provisions. These exemptions apply to nonprofit libraries, archive and educational institutions, reverse engineering, encryption research, protection of minors, personal privacy, and security testing.

Additionally, section 1201 directs the Librarian of Congress, upon the recommendation of the Register of Copyrights, to conduct a triennial rulemaking proceeding to determine whether there are classes of works that should be exempt from the anti-circumvention provisions.<sup>76</sup> The latest rulemaking included narrow exemptions that touched on technologies involving, among other things, DVDs, mobile phones, vehicle software, and smart TVs.<sup>77</sup> The seventh triennial section 1201 rulemaking proceeding is scheduled to occur in 2018.<sup>78</sup>

## DMCA Case Law

Given the complexity of the statute, as well as the numerous conflicting policy concerns, it is no surprise that courts have had difficulty agreeing on the proper scope of the DMCA's anti-circumvention provisions. This lack of consensus among the courts has led to widespread criticism of the anti-circumvention provisions, especially in cases involving fair use.<sup>79</sup>

One of the earliest cases to address the DMCA's anti-circumvention provisions arose out of the Second Circuit in *Universal City Studios, Inc. v. Reimerdes*.<sup>80</sup> This case involved a DVD encryption system developed by the motion picture industry called Content Scramble System (CSS), which prevented the user from watching the CSS-protected DVD without licensed decryption technology.<sup>81</sup> In response to this DRM, computer hackers developed and distributed a program called DeCSS, which circumvented the encryption technology, prompting several movie studios to bring a claim for a violation of section 1201(a)(2) of the DMCA.

In holding that the defendants in *Reimerdes* violated section 1201(a)(2) (trafficking in an access control circumvention device), the court implicitly ruled that circumvention of access control measures, even for purposes of fair use, is a violation of section 1201(a)(1)(A).<sup>82</sup> By characterizing CSS as an access control measure and rejecting any fair use defense, the holding in *Reimerdes* has the potential to give copyright owners the power to place uncopyrightable subject matter under lock and key by characterizing their DRM as an access control measure—a result that some commentators have argued undermines one of the fundamental principles of copyright law, which is that access to all ideas must remain open to all for copyright law not to run afoul of the First Amendment.<sup>83</sup>

In an effort to counteract the potential for monopolizing ideas through the use of access control measures, some courts have taken a more policy-based approach to the DMCA's anti-circumvention provisions. In *Chamberlain Group, Inc. v. Skylink Technologies, Inc.*, the Federal Circuit introduced a “critical nexus” requirement for section 1201(a) claims, requiring plaintiffs to show a nexus between circumvention of an access control measure and a violation of a section 106 right.<sup>84</sup>

In support of this “critical nexus” requirement, the court states that “[t]he statutory structure and the legislative history both make it clear that the DMCA granted copyright holders additional legal protections, but . . . [did not] rescind the basic bargain granting the public noninfringing and fair uses of copyrighted

---

materials.”<sup>85</sup> In other words, the holding in *Chamberlain* attempts to cut back on the holding in *Reimerdes* and reintroduce fair use into the DMCA analysis, preventing copyright owners from having unconditional control over access to their works. Yet, a number of subsequent courts have declined to read a “nexus requirement” between the defendant’s conduct and copyright infringement into the DMCA anti-circumvention statute.<sup>86</sup>

The controversy surrounding the circumvention of access control measures was complicated further in *Lexmark International, Inc. v. Static Control Components, Inc.*, in which the Sixth Circuit narrowly interpreted the phrase “effectively controls access” in section 1201(a)(2) to require a DRM to block *all* forms of access to be considered an access control measure.<sup>87</sup> In effect, the *Lexmark* court suggests that the word “effectively” is a crucial part of the statutory text. Such a holding could prove challenging in the future, however, as courts may begin to engage in the difficult task of determining whether a particular access control measure is sufficiently “effective.”

### The Future of DRM

Some have criticized DRM technologies for “privatiz[ing] and replac[ing] copyright law . . . undermin[ing] copyright limitations, threaten[ing] the interests of users and the public at large, and inhibit[ing] creativity and innovation by unjustly extending intellectual property protection.”<sup>88</sup> These criticisms, combined with the lack of consensus among the courts regarding the appropriate scope of DMCA protection and the new expectations of consumers accessing digital products, have left the future of DRM largely unclear.

While it is impossible to know exactly what DRM will look like going forward, the fundamental concept of DRM (using technological protection measures to attain greater control over copyrighted works) is likely here to stay, particularly as it is used by online services that store user-uploaded content in an attempt to combat the continuing scourge of online piracy. Absent a legislative response to the criticisms of DRM, copyright owners are likely to use technological protection measures, consumers will continue to develop more advanced technologies to circumvent DRM measures, and courts will continue to struggle to strike an appropriate balance between opposing policy concerns. In essence, the more things change, the more they will likely stay the same.

## Over-the-Top Explained

If the future of content distribution had to be described in three letters, they would be OTT. “Over-the-top” content is a broad term encompassing “any app or service that provides a product over the Internet and bypasses traditional distribution.”<sup>89</sup> In essence, OTT content is an app or service that is used instead of (or “over the top” of) an individual’s service provider. Examples of OTT providers include Netflix, Hulu, and Skype. These services are considered OTT because they are received over the Internet and replace services that would otherwise be provided by an individual’s service provider (TV and phone).<sup>90</sup>

## How We Arrived in the Age of OTT

The introduction of the Internet to the American public in the 1990s forever changed how individuals consumed content.<sup>91</sup> The Internet allowed consumers to exchange and receive information instantaneously, prompting consumers to demand this same instant gratification from all existing media platforms. Once the public experienced Internet instant gratification, it was clear that other content distribution platforms would need to adapt to this demand if they hoped to compete in the marketplace.

Despite the demand for instantly accessible content, online streaming technology and other OTT content would take several years to develop. Many technology companies, such as Microsoft, Apple, and RealNetworks, dedicated much of the late 1990s and early 2000s to creating a quality Internet streaming service, but none was able to truly corner the Internet streaming market due in large part to the bandwidth limitations and inadequate compression technology of the time.<sup>92</sup> It was not until 2007, when Netflix launched its online movie-streaming service, that accessibility to OTT content arrived in earnest.<sup>93</sup>

Once it became clear that network strength and reliability had reached the levels necessary to support OTT content that could rival the quality of cable or satellite signals, media and technology companies quickly rushed into the OTT space in an effort to capitalize on this new form of content distribution. This proliferation of OTT services has created a crowded market,<sup>94</sup> giving consumers more choice than ever before and requiring OTT providers to employ a variety of different business models to differentiate themselves from the crowd.<sup>95</sup>

## OTT Business Models

Despite offering similar services, OTT content providers employ a variety of different business models. The most popular OTT business model is the subscription video-on-demand (SVOD) model. SVOD includes any streaming service that allows subscribers to watch on-demand content in exchange for a subscription fee.<sup>96</sup> The most popular services using this model include Netflix, Hulu, and Amazon.

Another popular OTT model is the “skinny bundle” model used by virtual multichannel video programming distributors (VMVPDs)<sup>97</sup> and recently offered by incumbent providers. Although skinny bundles also charge a subscription fee, they differ from the SVOD model by offering live TV streaming, rather than a catalog of on-demand content. The skinny bundle model operates much like traditional Pay-TV, with two noticeable differences. First, skinny bundles offer subscribers fewer channels than traditional cable bundles offer, and for a lower price (hence the name). Second, skinny bundles allow the subscriber to access the content online from a mobile device, rather than having to use a set-top box.<sup>98</sup>

Skinny bundles have started to gain traction and have become an increasingly popular OTT model, recently prompting Google to create a skinny bundle service in the form of YouTube TV.<sup>99</sup> YouTube TV joined a growing list of skinny bundle services that includes Sling TV, PlayStation Vue, DirecTV Now, Hulu Live TV, and FuboTV.<sup>100</sup>

The last of the three main OTT business models is ad-supported video-on-demand (AVOD). Rather than charge a subscription fee, AVOD services provide consumers with free content in exchange for viewing ads.<sup>101</sup> The AVOD model is most often used by services centered on user-generated content, such as YouTube, Facebook, Instagram, and Snapchat. However, some more traditional streaming services such as Hulu and Crackle also employ an AVOD model.<sup>102</sup>

## How OTT Is Changing Content Distribution

OTT content providers are redefining content distribution through increased reliance on “Big Data,” by breaking down geographic barriers, and by providing users with quality streaming experiences across multiple devices. Each of these features of OTT services has helped contribute to the rise of a global OTT con-

---

tent market that by some estimates is projected to be worth roughly \$62 billion by 2020.<sup>103</sup>

The tremendous success of OTT content providers is owed in large part to the quality of services being offered; however, this success cannot be viewed in isolation. OTT services have had the benefit of developing in concert with the age of social media and Big Data, and this timing has allowed OTT providers to create content that is more personalized and interactive than ever before.<sup>104</sup> In contrast to traditional data collection methods, such as focus groups and Nielsen ratings, OTT providers are collecting and aggregating consumer data on a much more granular level: identifying when a user pauses, rewinds, or fast-forwards content, what type of content a user has searched for in the past, what type of device a user is streaming content on, and at what time during the day a user prefers to watch certain content.<sup>105</sup>

These advanced analytics are bolstered by social media platforms such as Facebook, Twitter, Instagram, and Snapchat, which allow OTT content providers to “better grow and engage their audiences,”<sup>106</sup> get real-time feedback on their products, and more accurately tailor content in response to current trends. In an age in which advanced analytics are driving content distribution, social media data is yet another tool in the OTT data arsenal, allowing OTT providers to better understand their consumers’ habits and preferences.

OTT content providers have now begun leveraging these predictive analytics into a more profitable business model, leading many other content providers to follow suit. The watershed moment in the use of predictive analytics to guide OTT content was seen in Netflix’s production of its original series *House of Cards*.<sup>107</sup> Rather than rely on pilot tests and focus groups, Netflix relied on the power of its predictive analytics, greenlighting the project and making a \$100 million commitment without ever having seen an episode.<sup>108</sup> Netflix’s bet ultimately paid off, as *House of Cards* quickly became the most-watched content on the streaming service,<sup>109</sup> prompting a widespread shift among OTT providers towards more data-driven original content.<sup>110</sup>

The use of Big Data by OTT providers is likely to have far-reaching consequences for all forms of content distribution. By collecting and aggregating detailed consumer data from various sources, OTT providers have been able to identify what consumers want even before the consumers do—an extremely valuable ability for content distributors. The use of these advanced analytics has

---

resulted in a mutually beneficial relationship in which consumers get content tailored to their preferences, while OTT providers get more subscribers (and in turn, more data). Given this symbiotic relationship, the use of Big Data to inform the business strategies of content distributors is likely here to stay.

### **The Future of Pay-TV**

The rise in popularity of OTT content has permanently changed the Pay-TV universe. In response to a shift in consumer viewing habits, traditional Pay-TV operators have joined the OTT movement, introducing various skinny bundles and à la carte OTT services.<sup>111</sup>

In order to further compete in the OTT space, Pay-TV operators are adapting to the dramatic rise in popularity of user-generated content. No longer do consumers simply passively receive content on their television sets from their cable or satellite providers. Today, consumers do not simply consume content; they create it and interact with it. The ubiquity of smartphones and other portable devices has led to an explosion of user-generated content, blurring the traditional lines between consumer and distributor. To date, user-generated content in the OTT space has primarily been limited to content distribution platforms such as YouTube and social media platforms such as Facebook, Twitter, Instagram, and Snapchat.<sup>112</sup> But this desire to interact and engage with content is becoming a more common theme across all OTT platforms.

In an effort to keep users engaged with their products, OTT content providers are increasingly relying on social media,<sup>113</sup> targeted advertising,<sup>114</sup> and recently, interactive children's programming.<sup>115</sup> To support these efforts, OTT providers are using detailed consumer data and advanced analytics to create a product that is uniquely tailored to each individual consumer. The use of Big Data is by no means limited to the OTT space, as most businesses now rely on customer analytics to some extent.

In addition to the shift towards more data-driven content distribution, another notable consequence of the OTT movement has been the increase in consolidation among cable and telecommunications companies.<sup>116</sup> There are many industry experts who believe that the advent of OTT services is largely responsible for an increase in M&A activity, with Pay-TV companies being forced to "bulk up to roll out new services more effectively and cheaply across a broader base, and to help keep rising programming costs in check."<sup>117</sup> Of these media/telecom mergers,

---

two of the most publicized were the AT&T-DIRECTV merger finalized in 2015 for \$67.1 billion,<sup>118</sup> and the Charter Communications-Time Warner Cable deal in 2014 for \$78.7 billion.<sup>119</sup>

As the brief history laid out in the first part of this article makes clear, attempting to predict the future of content distribution platforms is often an unavailing endeavor. What appears revolutionary today can be obsolete tomorrow, and what appears infeasible today may be made possible tomorrow (as was the case with early Internet streaming technology). However, at least one thing appears clear: We are in the midst of a transformation in how consumers consume and interact with content, and the content providers that are best able to adapt to the constantly changing habits and preferences of today's consumer will likely thrive in this new environment.

---

This article was originally published in the PLI course handbook for the program [Think Like a Lawyer, Talk Like a Geek 2017: Get Fluent in Technology](#).

---

---

## NOTES

1. *Player Piano*, ENCYCLOPEDIA BRITANNICA, [www.britannica.com/art/player-piano](http://www.britannica.com/art/player-piano) (last visited June 19, 2017).
2. *Music Box*, ENCYCLOPEDIA BRITANNICA, [www.britannica.com/art/music-box](http://www.britannica.com/art/music-box) (last visited June 21, 2017).
3. *White-Smith Music Publ'g Co. v. Apollo Co.*, 209 U.S. 1 (1908).
4. *Id.* at 18.
5. 17 U.S.C. § 102(a).
6. Bryan Clark, *How Analog Radio Works, What's Digital Radio, and What's Next?*, MUO (July 17, 2015), [www.makeuseof.com/tag/how-analog-radio-works-whats-digital-radio-and-whats-next/](http://www.makeuseof.com/tag/how-analog-radio-works-whats-digital-radio-and-whats-next/).
7. *Radio Act of 1927 Law and Legal Definition*, USLEGAL, <https://definitions.uslegal.com/r/radio-act-of-1927/> (last visited Sept. 18, 2017).
8. *ASCAP*, ENCYCLOPEDIA BRITANNICA, [www.britannica.com/topic/ASCAP](http://www.britannica.com/topic/ASCAP) (last visited June 19, 2017).
9. *ASCAP Payment System: Who Does ASCAP Collect From?*, ASCAP, [www.ascap.com/help/royalties-and-payment/payment/whocollect](http://www.ascap.com/help/royalties-and-payment/payment/whocollect) (last visited Sept. 3, 2017).
10. Joseph Pomianowski, *Toward an Efficient Licensing and Rate-Setting Regime: Reconstructing § 114(i) of the Copyright Act*, 125 YALE L.J. 1531, 1532 (2016).
11. *Id.*
12. 17 U.S.C. § 114; Chris Cooke, *US Record Industry Lobbying Group Makes Copyright Demands of New Congress*, COMPLETE MUSIC UPDATE (Jan. 19, 2017), [www.completemusicupdate.com/article/us-record-industry-lobbying-group-makes-copyright-demands-of-new-congress/](http://www.completemusicupdate.com/article/us-record-industry-lobbying-group-makes-copyright-demands-of-new-congress/).
13. 17 U.S.C. § 114; *Licensing 101*, SOUNDEXCHANGE, [www.soundexchange.com/service-provider/licensing-101/](http://www.soundexchange.com/service-provider/licensing-101/) (last visited Sept. 3, 2017).
14. *Licensing 101*, SOUNDEXCHANGE, [www.soundexchange.com/service-provider/licensing-101/](http://www.soundexchange.com/service-provider/licensing-101/) (last visited Sept. 18, 2017); *Notice of Use of Sound Recordings—Sections 112 and 114*, U.S. COPYRIGHT OFFICE, [www.copyright.gov/licensing/sec\\_112.html](http://www.copyright.gov/licensing/sec_112.html) (last visited Sept. 18, 2017).
15. Melissa Daniels, *DOJ Asks 2nd Circ. to Overturn BMI Fractional-License Ruling*, LAW360 (May 18, 2017), [www.law360.com/articles/925904/doj-asks-2nd-circ-to-overturn-bmi-fractional-license-ruling](http://www.law360.com/articles/925904/doj-asks-2nd-circ-to-overturn-bmi-fractional-license-ruling) (subscription required).
16. MITCHELL STEPHENS, HISTORY OF TELEVISION, [www.nyu.edu/classes/stephens/History%20of%20Television%20page.htm](http://www.nyu.edu/classes/stephens/History%20of%20Television%20page.htm) (last visited Sept. 3, 2017).
17. *Fortnightly Corp. v. United Artists Television, Inc.*, 392 U.S. 390 (1968).
18. *Id.*
19. *Id.* at 392.
20. *Id.* at 406.
21. *Id.* at 399.

- 
22. Teleprompter Corp. v. Columbia Broad., 415 U.S. 394 (1974).
  23. 17 U.S.C. § 101.
  24. *Id.*
  25. *Id.*
  26. 17 U.S.C. § 111.
  27. *50 Years of the Video Cassette Recorder*, WIPO MAG. No. 6 (Nov. 2006).
  28. Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417 (1984).
  29. *Id.* at 456.
  30. *Id.*
  31. *See* MGM Studios Inc. v. Grokster, Ltd., 545 U.S. 913 (2005).
  32. Boosey & Hawkes Music Publishers., Ltd. v. Walt Disney Co., 145 F.3d 481 (2d Cir. 1998).
  33. *Id.* at 484.
  34. *Id.* at 483.
  35. *Id.* at 487.
  36. *Id.* at 488 n.4.
  37. Random House, Inc. v. Rosetta Books LLC, 283 F.3d 490 (2d Cir. 2002).
  38. *Id.* at 491.
  39. Random House Inc. v. Rosetta Books LLC, 150 F. Supp. 2d 613, 622 (S.D.N.Y. 2001). *But see* HarperCollins Publrs. LLC v. Open Rd. Integrated Media, LLP, 7 F. Supp. 3d 363 (S.D.N.Y. 2014) (holding that 1971 contract granted HarperCollins the exclusive right to publish e-book versions (as opposed to whether HarperCollins may undertake such publication itself)) (court distinguished *Rosetta Books* by stating that “to publish . . . in book form” was different from “to print, publish and sell” and agreement had forward-looking language referencing new technologies).
  40. *Random House*, 150 F. Supp. 2d at 623.
  41. In many cases, however, innovation, no matter how well-meaning, runs counter to copyright law. *See, e.g.*, Capitol Records, LLC v. ReDigi Inc., 934 F. Supp. 2d 640 (S.D.N.Y. 2013), *appeal docketed*, No. 16-2321 (2d Cir. July 1, 2016) (holding that ReDigi’s virtual marketplace for pre-owned digital music infringed plaintiff’s reproduction rights, rejecting ReDigi’s argument that its service merely “migrates” a file from a user’s computer to ReDigi’s Cloud Locker so that the same file is eventually transferred to the buyer); *see also* Warner Bros. Entm’t Inc. v. WTV Sys., 824 F. Supp. 2d 1003, 1010 (C.D. Cal. 2011) (injunction issued where the defendants operated an online DVD “rental” service streaming movies to users without prior licensing arrangements with copyright owners; defendants transmitted copyrighted works publicly because although “[c]ustomers watching one of Plaintiffs’ Copyrighted Works on their computer . . . [were] not necessarily watching it in a ‘public place’ . . . they were nonetheless members of the public”).
  42. Am. Broad. Cos. v. Aereo, Inc., 134 S. Ct. 2498, 2503 (2014).
  43. *Id.* at 2503.
  44. *Id.*
  45. *Id.* at 2511.
  46. *Id.* at 2507.
-

- 
47. Joan E. Solsman, *How Supreme Court Ruling Affects Aereo, the Cloud, and You*, CNET (June 26, 2014), [www.cnet.com/news/how-the-supreme-court-ruling-affects-aereo-the-cloud-and-you/](http://www.cnet.com/news/how-the-supreme-court-ruling-affects-aereo-the-cloud-and-you/).
  48. *Aereo*, 134 S. Ct. at 2508.
  49. *Id.*; see also *Cartoon Network v. CSC Holdings, Inc.*, 536 F.3d 121 (2d Cir. 2008).
  50. Eric Griffith, *What Is Cloud Computing?*, PCMAG (May 3, 2016), [www.pcmag.com/article2/0,2817,2372163,00.asp](http://www.pcmag.com/article2/0,2817,2372163,00.asp).
  51. Matt Schruers, *Why Aereo Matters to the Cloud: A Primer*, DISRUPTIVE COMPETITION PROJECT (Mar. 4, 2014), [www.project-disco.org/intellectual-property/030414-why-aereo-matters-to-the-cloud-a-primer/#.WUFKhWeGOUl](http://www.project-disco.org/intellectual-property/030414-why-aereo-matters-to-the-cloud-a-primer/#.WUFKhWeGOUl).
  52. See, e.g., *BWP Media U.S. v. T&S Software Assocs.*, 852 F.3d 436, 444 (5th Cir. 2017) (adopting the volitional-conduct requirement in direct-copyright-infringement cases).
  53. *Over-the-Top Application (OTT)*, TECHOPEDIA, [www.techopedia.com/definition/29145/over-the-top-application-ott](http://www.techopedia.com/definition/29145/over-the-top-application-ott) (last visited Sept. 3, 2017).
  54. *Video on Demand*, NIELSEN (Mar. 16, 2016), [www.nielsen.com/us/en/insights/reports/2016/video-on-demand.html](http://www.nielsen.com/us/en/insights/reports/2016/video-on-demand.html).
  55. Tom Risen, *Comcast, Netflix and the Death of Cable*, U.S. NEWS (July 16, 2015), [www.usnews.com/news/articles/2015/07/16/comcast-netflix-and-the-death-of-cable](http://www.usnews.com/news/articles/2015/07/16/comcast-netflix-and-the-death-of-cable).
  56. See Nicholas E. Sciorra, *Self-Help and Contributory Infringement: The Law and Legal Thought Behind a Little "Black Box"*, 11 CARDOZO ARTS & ENT. L.J. 905, 925 (1993).
  57. PATRICK PARSONS, *BLUE SKIES: A HISTORY OF CABLE TELEVISION* 555 (Temple Univ. Press 2008).
  58. Dow Jones, *Company News; Motorola Completes General Instrument Acquisition*, N.Y. TIMES (Jan. 6, 2000), [www.nytimes.com/2000/01/06/business/company-news-motorola-completes-general-instrument-acquisition.html](http://www.nytimes.com/2000/01/06/business/company-news-motorola-completes-general-instrument-acquisition.html).
  59. PARSONS, *supra* note 57.
  60. Chris Kraul, *VideoCipher Scrambles (and Descrambles) to Success*, L.A. TIMES (July 14, 1987), [http://articles.latimes.com/1987-07-14/business/fi-3806\\_1\\_dish-owners](http://articles.latimes.com/1987-07-14/business/fi-3806_1_dish-owners).
  61. *Digital Television*, FED. COMM'NS COMM'N (Aug. 9, 2016), [www.fcc.gov/general/digital-television](http://www.fcc.gov/general/digital-television).
  62. Julie E. Cohen, *Lochner in Cyberspace: The New Economic Orthodoxy of "Rights Management"*, 97 MICH. L. REV. 462, 524–25 (1998).
  63. *Id.*
  64. Pub. L. No. 105-304, 112 Stat. 2860 (Oct. 28, 1998).
  65. See Margaret Rouse, *Digital Millennium Copyright Act (DMCA)*, WHATIS.COM (Mar. 2011), <http://whatis.techtarget.com/definition/Digital-Millennium-Copyright-Act-DMCA>.
  66. 17 U.S.C. §§ 1201(a)(2), 1201(b).
  67. *Circumventing Copyright Controls*, DIGITAL MEDIA LAW PROJECT, [www.dmlp.org/legal-guide/circumventing-copyright-controls](http://www.dmlp.org/legal-guide/circumventing-copyright-controls) (last visited Sept. 3, 2017).
  68. See June M. Besek, *Anti-Circumvention Laws and Copyright: A Report from the Kernochan Center for Law, Media, and the Arts*, 27 COLUM. J.L. & ARTS 385, 393–94 (2004).
  69. 17 U.S.C. § 1201(a)(1).
  70. *Id.* § 1201(b)(2)(B).
-

- 
71. *Id.* § 1201(a)(3)(A).
  72. *Id.* § 1201(a)(3)(B).
  73. *Id.* §§ 1201(a)(2), 1201(b).
  74. Pamela Samuelson, *Intellectual Property and the Digital Economy: Why the Anti-Circumvention Regulations Need to be Revised*, 14 HIGH TECH. L.J. 519, 561 (1999).
  75. Realnetworks, Inc. v. DVD Copy Control Ass’n, 641 F. Supp. 2d 913, 942 (N.D. Cal. 2009) (stating that “[f]air use is not a defense to trafficking in products used to circumvent effective technological measures that prevent unauthorized access to, or unauthorized copying of, a copyrighted work under sections 1201(a) or (b) [of the DMCA], respectively.”).
  76. 17 U.S.C. § 1201(a)(1)(B).
  77. Exemption to Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies, 80 Fed. Reg. 65,944 (Oct. 28, 2015) (codified at 37 C.F.R. § 201).
  78. *Rulemaking Proceedings Under Section 1201 of Title 17*, U.S. COPYRIGHT OFFICE, [www.copyright.gov/1201/](http://www.copyright.gov/1201/) (last visited Sept. 3, 2017).
  79. YiJun Tian, *Problems of Anti-Circumvention Rules in the DMCA & More Heterogeneous Solutions*, 15 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 749, 766–72 (2005).
  80. Universal City Studios, Inc. v. Reimerdes, 111 F. Supp. 2d 294 (S.D.N.Y. 2000), *aff’d sub nom.* Universal City Studios, Inc. v. Corley, 273 F.3d 429 (2d Cir. 2001).
  81. *Id.* at 301.
  82. Tian, *supra* note 79, at 770.
  83. 17 U.S.C. § 102(b).
  84. Chamberlain Grp., Inc. v. Skylink Tech., Inc., 381 F.3d 1178, 1204 (Fed. Cir. 2004).
  85. *Id.* at 1202.
  86. *See, e.g.*, MDY Indus., LLC v. Blizzard Entm’t, Inc., 629 F.3d 928, 950 (9th Cir. 2010) (declining to follow the Federal Circuit approach because it is “contrary to the plain language of the statute”).
  87. Lexmark Int’l, Inc. v. Static Control Components, Inc., 387 F.3d 522, 547 (6th Cir. 2005).
  88. EBERHARD BECKER ET AL., DIGITAL RIGHTS MANAGEMENT: TECHNOLOGICAL, ECONOMIC, LEGAL AND POLITICAL ASPECTS 597 (2003).
  89. *Over-the-Top Application (OTT)*, TECHOPEDIA, [www.techopedia.com/definition/29145/over-the-top-application-ott](http://www.techopedia.com/definition/29145/over-the-top-application-ott) (last visited Sept. 3, 2017).
  90. Nadeem Unuth, *What is OTT and How Is It Affecting Communication*, LIFEWIRE (Feb. 23, 2017), [www.lifewire.com/what-is-ott-3426369](http://www.lifewire.com/what-is-ott-3426369).
  91. *Internet*, 5 WEST’S ENCYCLOPEDIA OF AMERICAN LAW (2 ed. 2005), [www.encyclopedia.com/science-and-technology/computers-and-electrical-engineering/computers-and-computing/internet](http://www.encyclopedia.com/science-and-technology/computers-and-electrical-engineering/computers-and-computing/internet).
  92. Alex Zambelli, *A History of Media Streaming and the Future of Connected TV*, GUARDIAN (Mar. 1, 2013), [www.theguardian.com/media-network/media-network-blog/2013/mar/01/history-streaming-future-connected-tv](http://www.theguardian.com/media-network/media-network-blog/2013/mar/01/history-streaming-future-connected-tv).
  93. Ashley Rodriguez, *Ten Years Ago, Netflix Launched Streaming Video and Changed the Way We Watch Everything*, QUARTZ (Jan. 17, 2017), <https://qz.com/887010/netflix-nflx-launched-streaming-video-10-years-ago-and-changed-the-way-we-watch-everything/>.
-

- 
94. Tracy Williams, *Driving OTT Audience Growth in a Crowded Market*, BRIGHTCOVE (June 29, 2016), [www.brightcove.com/en/blog/2016/06/driving-ott-audience-growth-crowded-market](http://www.brightcove.com/en/blog/2016/06/driving-ott-audience-growth-crowded-market).
  95. Samantha Bookman, *A Closer Look at the Billions of Dollars Netflix, Amazon and Hulu are Spending on Original Content*, FIERCECABLE, [www.fiercecable.com/special-report/a-closer-look-at-billions-dollars-netflix-amazon-and-hulu-are-spending-original](http://www.fiercecable.com/special-report/a-closer-look-at-billions-dollars-netflix-amazon-and-hulu-are-spending-original).
  96. Andrew Wallenstein, *The OTT View-niverse: A Map of the New Video Ecosystem*, VARIETY (Apr. 29, 2015), <http://variety.com/2015/digital/news/ott-map-video-ecosystem-1201480930/>.
  97. A multichannel video programming distributor (MVPD) is an entity engaged in the business of making available for purchase, by subscribers or customers, multiple channels of video programming. Such entities include, but are not limited to, a cable operator, a broadband radio service/education broadband service provider, a direct broadcast satellite service, a television receive-only satellite program distributor, and a satellite master antenna television system operator, as well as buying groups or agents of all such entities. 47 C.F.R. § 76.1000(e) (2010). A VMVPD is an MVPD that delivers linear television via an internet connection rather than a hard-wired set-top box. *The VMVPD: Cable's Answer to Cord Cutting*, ADEXCHANGER (Mar. 27, 2017), <https://adexchanger.com/tv-and-video/vmvpd-cables-answer-cord-cutting/>.
  98. See Davey Alba, *Google Takes on Cable with 'YouTube TV'—40 Channels for \$35*, WIRED (Fed. 28, 2017), [www.wired.com/2017/02/youtube-tv-skinny-bundle/](http://www.wired.com/2017/02/youtube-tv-skinny-bundle/).
  99. *Id.*
  100. *Id.*
  101. Wallenstein, *supra* note 96.
  102. *Id.*
  103. *Over the Top Market Worth 62.03 Billion USD by 2020*, MARKETSSANDMARKETS, [www.marketsandmarkets.com/PressReleases/over-the-top-ott.asp](http://www.marketsandmarkets.com/PressReleases/over-the-top-ott.asp).
  104. Tom Huddleston, Jr., *How Netflix Is Using Your Data*, FORTUNE (Sept. 19, 2016), <http://fortune.com/2016/09/19/netflix-streaming-tv-movies/>.
  105. David Carr, *Giving Viewers What They Want*, N.Y. TIMES (Feb. 24, 2013), [www.nytimes.com/2013/02/25/business/media/for-house-of-cards-using-big-data-to-guarantee-its-popularity.html?\\_r=0](http://www.nytimes.com/2013/02/25/business/media/for-house-of-cards-using-big-data-to-guarantee-its-popularity.html?_r=0); Joy D'Souza, *Netflix Study Reveals What You Like to Watch Depending on the Time of Day*, HUFFPOST (May 25, 2017), [www.huffingtonpost.ca/2017/05/25/netflix-study\\_n\\_16809160.html](http://www.huffingtonpost.ca/2017/05/25/netflix-study_n_16809160.html).
  106. Kurt Michael, *OTT: The Future of Content Delivery*, MULTICHANNEL (Nov. 21, 2016), [www.multichannel.com/blog/mcn-guest-blog/ott-future-content-delivery/409144](http://www.multichannel.com/blog/mcn-guest-blog/ott-future-content-delivery/409144).
  107. Carr, *supra* note 105.
  108. Gregg Greenberg, *For Amazon, Netflix, Google, It's All About Consumer Data*, THESTREET (Sept. 14, 2016), [www.thestreet.com/story/13733572/1-for-amazon-netflix-google-it-s-all-about-consumer-data.html](http://www.thestreet.com/story/13733572/1-for-amazon-netflix-google-it-s-all-about-consumer-data.html).
  109. Dieter Bohn, *House of Cards the 'Most-Watched' Show on Netflix, Will 'Arrested Development' Follow?*, THEVERGE (Feb. 12, 2013), [www.theverge.com/2013/2/12/3981996/house-of-cards-is-the-most-watched-thing-on-netflix-but-no-ones](http://www.theverge.com/2013/2/12/3981996/house-of-cards-is-the-most-watched-thing-on-netflix-but-no-ones).
-

110. Carr, *supra* note 105; James Pearson, *Netflix and the Rush Towards Producing Original Content*, MEDIAWRITES (Mar. 14, 2017), [www.mediawrites.com/netflix-and-the-rush-towards-producing-original-content/](http://www.mediawrites.com/netflix-and-the-rush-towards-producing-original-content/).
111. Wallenstein, *supra* note 96.
112. William Johnson, *The Role of Social Media in User Generated Content Marketing*, MAXIMIZE SOCIAL BUS. (June 14, 2016), <https://maximizesocialbusiness.com/role-social-media-user-generated-content-marketing-23229/>.
113. *See OTT Competes with TV for Social Media Ratings*, ADVANCED TELEVISION (June 9, 2016), <http://advanced-television.com/2016/06/09/ott-competes-with-tv-for-social-media-ratings/>.
114. *See* Mike Shields, *Advertising on Streaming TV Devices Is About to Get More Targeted*, WALL ST. J. (Feb. 27, 2017), [www.wsj.com/articles/advertising-on-streaming-tv-devices-is-about-to-get-more-targeted-1488193202](http://www.wsj.com/articles/advertising-on-streaming-tv-devices-is-about-to-get-more-targeted-1488193202).
115. *See* John Koblin, *Netflix Lets Viewers Pick the Plot*, N.Y. TIMES (June 20, 2017), [www.nytimes.com/2017/06/20/business/media/netflix-interactive-television-puss-in-boots.html](http://www.nytimes.com/2017/06/20/business/media/netflix-interactive-television-puss-in-boots.html).
116. Mike Farrell, *Eat or Be Eaten: Consolidation Creates a Top-Heavy List of 25 Largest MVPDs*, MULTICHANNEL.COM (Aug. 17, 2015), [www.multichannel.com/sites/default/files/public/pdf/Coverstory\\_8\\_17\\_15\\_0.pdf](http://www.multichannel.com/sites/default/files/public/pdf/Coverstory_8_17_15_0.pdf).
117. *Id.*
118. Ray Sheffer, *The ~\$67 Billion AT&T-DIRECTV Merger Is Done*, YAHOO FINANCE (Aug. 4, 2015), <https://finance.yahoo.com/news/67-billion-t-directv-merger-144655634.html>.
119. Farrell, *supra* note 127.



# The Current

## The Journal of PLI Press

---

Vol. 1, No. 2, Autumn 2017

### Are “Immoral, Deceptive, or Scandalous” Trademarks Registrable After *Matal v. Tam*?

**Joanna Y. Chen**

*Cislo & Thomas LLP*

**Jeffrey G. Sheldon**

*Cislo & Thomas LLP*

#### **Introduction**

The Supreme Court recently invalidated a seventy-year-old federal trademark statute provision based on the First Amendment’s free speech clause, in the high-profile case of *Matal v. Tam*.<sup>1</sup> The Court concluded that the Lanham Act’s disparagement clause unconstitutionally regulated private speech when requiring

a trademark examiner to make a determination whether a mark “may disparage . . . persons, living or dead . . . or bring them into contempt, or disrepute.”<sup>2</sup> Such an analysis forces an examiner to determine whether any persons may be disparaged by the use of the mark, a determination the Court deemed unlawful viewpoint discrimination because “[g]iving offense is a viewpoint.”<sup>3</sup>

Consequently, the constitutionality of the rest of 15 U.S.C. § 1052(a) (also known as section 2(a) of the Lanham Act), which allows an examiner to refuse registration for “immoral, deceptive, or scandalous matter,” also comes into question. It is our opinion that immoral and scandalous matter should be registrable, following *Tam*; but refusal of deceptive matter should still be considered constitutional, regardless of whether trademarks are deemed commercial or noncommercial speech.

### ***Matal v. Tam*: Background and Summary**

The Slants is an Asian-American rock band that chose its name in hopes of reclaiming a term that has a meaning derogatory to Asians. The band’s founder, Simon Tam, an Asian-American, was denied federal trademark registration for the name. The examiner determined that Asians would find the mark disparaging and refused registration under section 2(a) of the Lanham Act, which states:

No trademark by which the goods of the applicant may be distinguished from the goods of others shall be refused registration on the principal register on account of its nature unless it—

- (a) Consists of or comprises immoral, deceptive, or scandalous matter; or matter which may disparage or falsely suggest a connection with persons, living or dead, institutions, beliefs, or national symbols, or bring them into contempt, or disrepute . . . .

The question was whether the disparagement clause of section 2(a) is an unconstitutional restriction of speech by the government. First, the Court had to determine whether trademarks were government speech or private speech. The Court concluded that trademarks were not government speech, but rather were private speech and, therefore, not afforded the government-speech exemption under the Free Speech Clause.<sup>4</sup> The Court stated that one particularly worri-

---

some implication of considering trademarks as government speech is that federally registered copyrights, which have “identical accoutrements,” may then “likewise amount to government speech.”<sup>5</sup>

As for the practical implication of the disparagement clause, under the *Trademark Manual of Examining Procedure* (TMEP), the trademark examiner is instructed to perform a two-part test: (1) The examiner must first consider “the likely meaning of the matter in question, taking into account not only dictionary definitions, but also the relationship of the matter to the other elements in the mark, the nature of the goods or services, and the manner in which the mark is used in the marketplace in connection with the goods or services.” (2) Then, “[i]f that meaning is found to refer to identifiable persons, institutions, beliefs or national symbols,” the examiner asks “whether that meaning may be disparaging to a substantial composite[, not necessarily a majority,] of the referenced group.”<sup>6</sup> Interestingly, the U.S. Patent and Trademark Office (USPTO) specified that even if the applicant is a member of that group or has good intentions for using that term, that “does not obviate the fact that a substantial composite of the reference group would find the term objectionable.”<sup>7</sup>

As for Tam’s mark, it was rejected after the examiner relied on the two-part test as well as on findings that “‘the band’s name has been found offensive numerous times’—citing a performance that was canceled because of the band’s moniker and the fact that ‘several bloggers and commenters to articles on the band have indicated that they find the term and the applied-for mark offensive.’”<sup>8</sup> At the Federal Circuit, the majority found that the clause, and consequently the TMEP’s two-part test that materialized from the spirit of the clause, asked trademark examiners to unconstitutionally regulate the expressive component of trademarks.<sup>9</sup> The Federal Circuit concluded that because the regulation was on the expressive component of the trademark, separable from the commercial component, strict constitutional scrutiny applied.<sup>10</sup> In order to pass a strict scrutiny standard, the disparagement clause needed to be content- or viewpoint-neutral; the Federal Circuit concluded it was not.<sup>11</sup>

The Supreme Court, however, was not as willing to analyze whether trademarks were commercial or noncommercial speech.<sup>12</sup> Instead, the Court said that even if trademarks were considered commercial speech and thus trademark regulations were tested under *Central Hudson*,<sup>13</sup> the disparagement clause would still fail *Central Hudson*’s intermediate scrutiny standard.<sup>14</sup> The Supreme Court could

have seized this opportunity in *Tam* to clarify whether trademarks are commercial or noncommercial speech. However, it refused to resolve that debate, summarizing both sides of the issue: On one hand, the central purpose of trademarks is commercial, but on the other hand, trademarks have an expressive component that may express a certain viewpoint.<sup>15</sup> As *Tam* illustrates, the “line between commercial and non-commercial speech is not always clear. If affixing the commercial label permits the suppression of any speech that may lead to political or social ‘volatility,’ free speech would be endangered.”<sup>16</sup> Perhaps the Court’s refusal to delineate a legal framework for determining when trademarks are considered

## **The Supreme Court refused to resolve the debate over whether trademarks are commercial or noncommercial speech.**

commercial versus noncommercial speech implies the Court’s belief that trademarks have components of both, and such a determination in terms of free speech challenges is circumstantial and fact-dependent. Further, several Supreme Court Justices have suggested their willingness to abandon the distinction between commercial and noncommercial speech.<sup>17</sup>

*Central Hudson* requires that restriction of speech serves “a substantial interest” and must be “narrowly drawn.”<sup>18</sup> The disparagement clause was claimed to serve two interests: (1) “preventing underrepresented groups from being bombarded with demeaning messages in commercial advertising” and (2) “protecting orderly flow of commerce.”<sup>19</sup> As for the first interest, the Court held that that exact interest is “what strikes at the heart of the First Amendment,” because “the proudest boast of our free speech jurisprudence is that we protect the freedom to express ‘the thought that we hate.’”<sup>20</sup> As for the second interest, it is recognized that disparaging trademarks, “analogized to discriminatory conduct,” have an adverse effect on commerce.<sup>21</sup> However, the Court stated that because the clause reached *any* trademark that disparages *any* person, group, or institution,

---

it was not “narrowly drawn” and reached further than necessary to serve the interest asserted.<sup>22</sup> Thus, the Court concluded, assuming that the disparagement clause regulates trademarks as commercial speech, the disparagement clause was unconstitutional.

## How *Matal v. Tam* Affects “Immoral” or “Scandalous” Marks

As for restricting immoral or scandalous matters from being registrable trademarks, the Court did not specifically address whether these restrictions are also unconstitutional. That is currently at issue in *In re Brunetti*,<sup>23</sup> where the USPTO denied trademark registration for the mark “FUCT” for apparel (including children’s and infants’ clothing) for being “scandalous and immoral.”

In light of the *Tam* decision, the Federal Circuit ordered the parties in *Brunetti* to submit supplemental briefing explaining how the *Tam* decision affects the “immoral or scandalous” provision of section 2(a) of the Lanham Act.<sup>24</sup> During oral argument, scheduled following the *Tam* decision, the Federal Circuit panel was not convinced of the U.S. government’s defense that refusal to register immoral or scandalous trademarks is viewpoint-neutral because registration is “equally denied to everyone.” Arguing for Brunetti, attorney John Sommer stated that “[t]he point of the First Amendment is the free marketplace of ideas” and asked, “[w]hat business is it of the government to determine morality?” The panel pressed DOJ attorney Joshua Marc Salzman, representing the government, as to the test of what is considered immoral, and Circuit Judge Kimberly Moore found that “[i]t was shocking, the level of inconsistency among the rejections versus acceptances of same words.” Salzman could not answer and further could not “articulate what the government’s substantial interest is in preserving the constitutionality of” this provision to the satisfaction of the panel.

At first glance, the “immoral or scandalous” provision is distinguishable from the disparagement clause because the former makes a determination based on whether a “substantial composite of *the general public*,” in the context of “contemporary attitudes and the relevant marketplace,” would find the mark to be offensively immoral or scandalous, as opposed to interpreting the viewpoints of a “substantial composite of *[a] reference group*” for the disparagement clause.<sup>25</sup> Based on this variance, it appears that the “immoral or scandalous” provision

requires consideration of a larger group of people to find a mark immoral or scandalous. However, arguably, even if the restriction for “immoral or scandalous” marks is considered to be narrower than that of the disparagement clause, a determination for what would be offensive for a “substantial composite of the general public” should still be considered overly broad.

The Supreme Court in *Tam* saw the disparagement clause as overbroad in that it extended to disparagement of “*any person, group, or institution.*”<sup>26</sup> However, arguably, the term “substantial composite,” especially with the caveat that it need not be a majority, also raises issues as to being vague and overreaching. Further, even though *Tam* does not specifically address the ban on “immoral or scandalous” trademarks, the Court did say that the disparagement provision “offends a bedrock First Amendment principle: Speech may not be banned on the ground that it expresses ideas that offend.”<sup>27</sup> In addition, as the Court noted, the scandalousness provision is—like the disparagement clause—“somewhat vague and the determination of whether a mark is scandalous or disparaging is necessarily a highly subjective one.”<sup>28</sup> Therefore, *Brunetti* should hold that even if it may be the case that the “immoral or scandalous” provision requires a larger group to find the mark as offensive, the question of how much larger becomes the source of vagueness, and therefore, the “immoral or scandalous” provision should also be deemed unconstitutional under the Free Speech Clause.

## How *Matal v. Tam* Affects “Deceptive” Marks

As for the “deceptive” provision of section 2(a) of the Lanham Act, first note that the section includes other language related to deceptiveness: It bars registration of marks “that *falsely* suggest connection with persons, living or dead, institutions, beliefs, or national symbols” or marks featuring a *false* geographical indication for wine and spirits.<sup>29</sup> Because the deceptiveness provision is part of the same clause as the disparagement provision, its constitutionality arguably may also be in question. However, unlike the immoral, scandalous, or disparagement provisions, restricting deceptiveness is also addressed in other sections of the Lanham Act, as it is deemed to be a core interest of trademark law. For example, under other provisions, a trademark cannot be registered if it is “merely descriptive or deceptively misdescriptive” of goods,<sup>30</sup> or if it is so similar to an already registered trademark or trade name that it is “likely . . . to cause confusion, or to cause mistake, or to deceive.”<sup>31</sup>

It is conceivable that a court will find that the government has a substantial interest, even a compelling interest, in protecting consumers from confusion rooted in misleading marks. And although the “deceptive” provision of section 2(a) may become interwoven in purely unconstitutional language if the court in *Brunetti* finds that the “immoral or scandalous” provision is also unconstitutional, the “deceptive” provision should remain intact. In other words, denying a mark for being deceptive serves the interest of protecting purchasers from confusion, which is a goal of trademark law as recognized by the Supreme Court.<sup>32</sup>

In terms of the analysis, the constitutionality of the “deceptive” provision should be analyzed under *Central Hudson* since a prohibition of deceptive marks deals with the commercial aspect of trademarks.<sup>33</sup> Under a *Central Hudson* analysis, the restriction of deceptive speech arguably serves “a substantial interest” of protecting consumers from being deceived and is “narrowly drawn,” with the restriction being directly and solely

in support of protecting consumers from such deception. In addition, it is highly unlikely that the Supreme Court would

## **Restricting deceptiveness is a core interest of trademark law.**

find that all of the provisions in section 1052 that speak to refusal of federal trademark registration of marks with deceptive characteristics are unconstitutional under the Free Speech Clause. Therefore, examiners will likely continue to be able to reject a federal trademark for registration based on deceptive characteristics.

## **Conclusion**

One obvious consequence of the Supreme Court’s holding in *Tam* is that trademark applicants no longer have to worry about whether their mark may disparage a substantial subset of a referenced group and, likely very soon, whether

their mark is scandalous or immoral to a substantial subset of the public. However, our opinion is that applicants attempting to file for deceptive trademarks will still continue to face issues despite the *Tam* decision.

---

Jeffrey G. Sheldon is the author of PLI's [How to Write a Patent Application](#) and is the chair of PLI's annual "Patent Law Practice: How to Be a Successful Patent Practitioner" program, available through PLI's [Interactive Learning Center](#).

---

## NOTES

1. *Matal v. Tam*, 137 S. Ct. 1744 (2017).
2. 15 U.S.C. § 1052(a).
3. *Tam*, 137 S. Ct. at 1763 (Alito, J., controlling op.). Unless otherwise indicated, references in this article are to Justice Alito’s opinion.
4. *See Tam*, 137 S. Ct. at 1757 (“The Free Speech Clause . . . does not regulate government speech.”) (quoting *Pleasant Grove City v. Summum*, 555 U.S. 460, 467 (2009)).
5. *Id.* at 1760; *see In re Tam*, 808 F.3d 1321, 1346 (Fed. Cir. 2015).
6. *Tam*, 137 S. Ct. at 1753–54 (quoting the TRADEMARK MANUAL OF EXAMINING PROCEDURE (TMEP) § 1203.03(b)(i)).
7. *Tam*, 137 S. Ct. at 1753–54.
8. *Id.* at 1754.
9. *In re Tam*, 808 F.3d 1321 (Fed. Cir. 2015).
10. *Id.* at 1334.
11. *Id.*
12. *Tam*, 137 S. Ct. at 1764.
13. *Cent. Hudson Gas & Elec. Corp. v. Public Serv. Comm’n of N.Y.*, 447 U.S. 557 (1980).
14. *Tam*, 137 S. Ct. at 1764.
15. *Id.*
16. *Id.* at 1765.
17. Rebecca Tushnet, *Trademark Law As Commercial Speech Regulations*, 58 S.C. L. REV. 737, 738 (2007); *see, e.g.*, 44 *Liquormart, Inc. v. Rhode Island*, 517 U.S. 484, 501, 512 (1996) (Stevens, J., plurality); *id.* at 517–18 (Scalia, J., concurring in part and concurring in the judgment); *id.* at 518 (Thomas, J., concurring in part and concurring in the judgment).
18. *Central Hudson*, 447 U.S. at 565.
19. *Tam*, 137 S. Ct. at 1764 (quoting from the government’s brief) (internal quotation marks and citations omitted).
20. *Id.* (citing *United States v. Schwimmer*, 279 U.S. 644, 655 (1929)).
21. *Id.*
22. *Id.* at 1764–65.
23. *In re Brunetti*, No. 2015-1109 (Fed. Cir.) (decision pending).
24. United States Patent and Trademark Office, Examination Guide 01-17 (June 26, 2017), [www.uspto.gov/sites/default/files/documents/Exam%20guide%2001-17.docx](http://www.uspto.gov/sites/default/files/documents/Exam%20guide%2001-17.docx).
25. TMEP § 1203.01.
26. *Tam*, 137 S. Ct. at 1765 (emphasis by the Court).
27. *Id.* at 1751.
28. *Id.* at 1756 n.5 (citing *In re In Over Our Heads, Inc.*, 16 U.S.P.Q.2d 1653, 1654 (T.T.A.B. 1990)).
29. 15 U.S.C. § 1052(a) (emphasis added).
30. *Id.* § 1052(e)(1).

31. *Id.* § 1052(d).
32. *See, e.g.*, WILLIAM M. LANDES & RICHARD A. POSNER, THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW 166–68 (2003); 1 J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 3:5 (4th ed. 2009).
33. *See* Va. State Bd. of Pharmacy v. Va. Citizens Consumer Council, Inc., 425 U.S. 748, 765 (1976) (commercial speech involves the “dissemination of information as to who is producing and selling what product, for what reason, and at what price”); *see id.* at 762 (defining “commercial speech” as speech that does “no more than propose a commercial transaction”); Bd. of Trs. of State Univ. of N.Y. v. Fox, 492 U.S. 469, 473–74 (1989); City of Cincinnati v. Discovery Network, Inc., 507 U.S. 410, 423 (1993).

# The Current

## The Journal of PLI Press

---

Vol. 1, No. 2, Autumn 2017

## What Happens If Inter Partes Review Proceedings Are Found Unconstitutional?

**Katherine B. Sales**

*Cislo & Thomas LLP*

**Jeffery G. Sheldon**

*Cislo & Thomas LLP*

The America Invents Act (AIA) includes three types of proceedings to challenge the validity of issued patents: inter partes review (IPR), post-grant review (PGR), and covered business method review (CBMR). They take place before the U.S. Patent Office's Patent Trial and Appeal Board (PTAB) of the U.S. Patent and Trademark Office (USPTO) and boast multiple advantages over district court proceedings, including reduced discovery costs and a short timeline to reach a

decision. Also, district courts stay proceedings during the PTAB proceedings. Prior to the AIA's creation of these proceedings, patents could be challenged only via traditional litigation in federal court, *ex parte* reexaminations (patents that issued from applications filed before November 29, 1999), and *inter partes* reexamination (patents that issued from an application filed on or after November 29, 1999).

IPRs have become popular, and they have been so successful for patent challengers that the PTAB has earned the title "Death Squad." These proceedings became the standard defense tactic for patent litigation in the United States. As a result, many patent owners who have had their patents invalidated under the AIA complain that there are many problems associated with the PTAB proceedings: they charge that the PTAB refuses to consider evidence timely submitted; refuses to allow amendments despite the statute saying there is a right to amend; refuses to issue final decisions on all the claims challenged; makes up its own standards instead of following statutory tests; lacks judicial rules of ethical conduct for its judges; and allows PTAB judges to decide issues where there are serious conflicts of interest.

IPRs are initiated by granting a third-party petition to have one or more claims of a patent declared invalid. Both the petitioner and the patentee have a right of appeal to the Federal Circuit, but no right to appeal to a district court.<sup>1</sup> Thus, there is no jury trial or any fact finding by a district court.

## **The *Oil States* Case**

On June 12, 2017, the U.S. Supreme Court granted certiorari in *Oil States Energy Services v. Greene's Energy Group* to decide whether IPRs are constitutional.<sup>2</sup> The case will decide whether the AIA patent review program remains viable, or whether validity challenges must instead be heard by the district courts. Over 1,500 final decisions, declaring some or all challenged claims unpatentable, have resulted from the AIA patent review program. Accordingly, there is potentially much at stake.

*Oil States* involves a challenge to U.S. Patent No. 6,179,053, directed to a lockdown mechanism for oil wells used during hydraulic fracking. *Oil States* is the owner of the '053 patent and sued Greene's for patent infringement. Approximately one year after the suit was initiated, Greene's filed a petition for IPR,

---

which was granted by the PTAB based on prior art submitted with the petition. After trial, the PTAB issued a final written decision holding that the two challenged claims, 1 and 22, were unpatentable, and denying Oil States' motion to amend the claims. Oil States appealed to the Federal Circuit, which issued a per curiam, one-line order affirming the PTAB's decision.<sup>3</sup> The Federal Circuit also denied a petition for rehearing and rehearing en banc. Oil States then filed its petition for certiorari. The questions presented in that petition were:

1. Whether *inter partes* review . . . violates the Constitution by extinguishing private property rights through a non-Article III forum without a jury.
2. Whether the amendment process implemented by the PTO in *inter partes* review conflicts with this Court's decision in *Cuozzo Speed Technologies, LLC v. Lee*, 136 S. Ct. 2131 (2016), and congressional direction.
3. Whether the "broadest reasonable interpretation" of patent claims—upheld in *Cuozzo* for use in *inter partes* review—requires the application of traditional claim construction principles, including disclaimer by disparagement of prior art and reading claims in light of the patent's specification.<sup>4</sup>

The Supreme Court granted certiorari only on the first question.

If IPRs are found to be unconstitutional, what will be the effect on the patent system? Interestingly, the petition for certiorari in *Cooper v. Lee*, where a similar issue of unconstitutionality was presented, provided a potential solution:

[T]his Court may make the process constitutionally sound by doing what it has always done under these circumstances: make the outcome of *inter partes* review advisory and subject to de novo treatment in an Article III trial court. So corrected, *inter partes* review may still identify and appropriately target "junk patents," though an Article III trial court will need to perform the final act of invalidation.<sup>5</sup>

This argument suggests that IPRs can remain intact and can continue to provide a viable way to challenge the validity of patents, as long as the final decision

issued by the PTAB is treated as an advisory opinion. Thus, in order to actually effect the invalidation, the advisory opinion must be reviewed de novo and upheld in an Article III trial court.<sup>6</sup>

## **What Is the Immediate Effect of a Finding of Unconstitutionality?**

In view of the suggestion presented by the petition in *Cooper*, the most immediate effect likely will be that a final written decision by the PTAB invalidating a patent will not actually be final. Petitioners will have to commence a district court case (presuming a parallel proceeding if one has not already been commenced), asking the district court judge to essentially sign off on the PTAB's decision. Alternatively, petitioners may choose to commence a district court case in parallel with the filing of an IPR. It remains to be seen whether this additional hurdle to achieving invalidation will reduce the number of petitioners taking advantage of the AIA patent proceedings.

## **What Effect Will a Finding of Unconstitutionality Have with Respect to IPR Decisions Already Made?**

Generally, a Supreme Court decision that a statute is unconstitutional is not retroactively applied. For example, in *Northern Pipeline Construction Co. v. Marathon Pipe Line Co.*,<sup>7</sup> the Supreme Court determined that the Bankruptcy Reform Act of 1978 was unconstitutional, but the Court declined to give its decision retroactive effect because of the potential for "substantial injustice and hardship" on litigants who had already relied on that act. So unless the Supreme Court explicitly states its decision is retroactive, we predict that those patents declared invalid by final decision, without any appeal filed, will remain invalid. If the Supreme Court states the ruling is retroactive, it is very likely that the courts will see a massive increase in the number of appeals filed. As noted above, over 1,500 final decisions, declaring some or all challenged claims unpatentable, have resulted from the AIA patent review program.

With regard to any pending IPRs, the result may depend on whether the patentee raised the unconstitutionality argument, and on the approach taken by the Federal Circuit. It is expected that anything pending should be dismissed, because if the proceeding itself now violates the constitution, how could it be allowed to

---

continue to reach a final decision? The decision would not be enforceable. But what is unknown is, if the issue of unconstitutionality was not raised during the proceeding, is it waived? It would be surprising if that were the outcome, but the end result remains to be seen.

Additionally, it is unlikely that the USPTO is going to stay any pending IPRs and await the Supreme Court's decision. Therefore, those already embroiled in an IPR will need to continue litigating it. Moreover, many patent attorneys are suggesting that the patent owners involved in IPRs file a notice reserving their rights to contest the constitutionality of the proceeding pending the Supreme Court's decision. And if the patent owner receives a PTAB decision rendering the patent invalid, the owner is strongly encouraged to consider keeping an appeal pending until the Supreme Court determines the constitutionality of IPRs.

We note from personal experience that the Federal Circuit continues to hear appeals from decisions by the PTAB on IPRs, not waiting to hear from the Supreme Court as to whether it is wasting its time. It is expected that patentees losing before the Federal Circuit will file a petition to the Supreme Court challenging the constitutionality of the IPR process.

### **What Effect Will the Decision Have on PGRs and CBMRs?**

Only the constitutionality of IPRs is being examined by the Supreme Court at this time, so there will be no immediate effect on PGRs or CBMRs. However, if IPRs are found unconstitutional, then it is very likely that a request for certiorari will eventually be made to evaluate the constitutionality of both PGRs and CBMRs. The main argument made by Oil States against IPRs is that they are “extinguishing private property rights through a non-Article III forum without a jury.” Both PGRs and CBMRs suffer from the same problem, so it is very likely someone will follow the lead of *Oil States* and petition for certiorari.

### **What Effect Will the Decision Have on Ex Parte Reexaminations?**

Ex parte reexaminations have been around since 1981, and either the patent owner or a third party may file a request with the USPTO at any time during the enforceability of a patent. The request must be based on patents and printed publications that the requester brings to the USPTO's attention. The requester must

establish that the submitted prior art establishes a substantial and new question of patentability. If the requester reaches that threshold, the USPTO will grant the request and order reexamination of the challenged patent. Once the reexamination begins, only the patent owner and the USPTO participate in the substantive examination; the third party has no right to participate.

If IPRs are found unconstitutional, *ex parte* reexaminations should still be available for the time being. But again, particularly if brought by a third party and not the patentee, they suffer from the same problem alleged against IPRs, namely, “extinguishing private property rights through a non-Article III forum without a jury.” Note that the outcome may indeed depend on whether the *ex parte* reexamination was instituted by the patent owner or by a third party. If instituted by a patent owner, the likelihood of overturning the reexamination result is significantly lower. The patent owner chose to initiate the reexamination, so it is more likely than not that the patent owner’s property was not improperly taken away. However, if the reexamination was instituted by a third party, then the likelihood of overturning the reexamination result is higher. The patent owner did not make the decision to institute the reexamination, so the chance that the patent owner’s property was improperly taken away is higher.

### **What Effect Will the Decision Have on the USPTO?**

If the USPTO can no longer invalidate patents after they issue, internal changes will have to be made. One possibility is a more restrictive examination process that would aim to cut down on the number of challenged patents. And will the USPTO be overstaffed? Jobs may be at stake.

### **What Effect Will the Decision Have on the Value of Patents?**

The effect of the *Oil States* decision on the value of patents should also be considered. If the only way a party can challenge a patent is going to be litigation, which is extremely expensive, then the value of patents should theoretically increase. AIA petitions (IPR, PGR, CBMR) provide a more economical way to challenge patents, with the result being that as of July 31, 2016, a total of 5,359 AIA petitions had been filed since inception of the AIA in 2012.<sup>8</sup> In 2014, a total of 1,489 petitions were filed. In 2015, a total of 1,897 petitions were filed. As of

July 31, 2016, a total of 1,386 petitions were filed. The number of petitions filed steadily increased, year after year. Without this more economical option, litigation will be the only route and few will be able to afford it.

---

Jeffrey G. Sheldon is the author of PLI's [How to Write a Patent Application](#) and is the chair of PLI's annual "Patent Law Practice: How to Be a Successful Patent Practitioner" program, available through PLI's [Interactive Learning Center](#).

---

## NOTES

1. 35 U.S.C. § 141.
2. *Oil States Energy Servs., LLC v Greene's Energy Grp., LLC*, 137 S. Ct. 2239 (2017).
3. *Oil States Energy Servs., LLC v Greene's Energy Grp., LLC*, 639 F. App'x 639 (Fed. Cir. 2016).
4. Petition for a Writ of Certiorari, *Oil States Energy Servs., LLC v. Greene's Energy Grp., LLC*, No. 16-712, 2016 WL 6995217 (U.S. Nov. 23, 2016).
5. Petition for a Writ of Certiorari, *Cooper v. Lee*, No. 15-955, 2016 WL 355184 (U.S. Jan. 21, 2016), <http://patentlyo.com/media/2016/01/CooperVLee.pdf>.
6. Article III trial courts are federal courts established by, or under, Article III of the U.S. Constitution, which states: "The judicial Power of the United States, shall be vested in one supreme Court, and in such inferior Courts as the Congress may from time to time ordain and establish."
7. *N. Pipeline Constr. Co. v. Marathon Pipe Line Co.*, 458 U.S. 50 (1982).
8. U.S. PATENT & TRADEMARK OFFICE, PATENT TRIAL AND APPEAL BOARD STATISTICS (July 31, 2016), [www.uspto.gov/sites/default/files/documents/2016-07-31%20PTAB.pdf](http://www.uspto.gov/sites/default/files/documents/2016-07-31%20PTAB.pdf).

# The Current

## The Journal of PLI Press

---

Vol. 1, No. 2, Autumn 2017

### The Trump Effect: Practical Drafting Tips for Estate Planners in Uncertain Times

**Robert W. Sheehan**

*Curtis, Mallet-Prevost, Colt & Mosle LLP*

**Michael S. Schwartz**

*Curtis, Mallet-Prevost, Colt & Mosle LLP*

**Josh Bergman**

*Curtis, Mallet-Prevost, Colt & Mosle LLP*

When Donald J. Trump won the presidency and the Republican Party fared better than most pundits expected in the 2016 elections, many experts predicted that major tax reform, including a repeal of the federal estate tax, would pass prior to the August 2017 congressional recess. The August 2017 congressional recess has since come and gone, and the Trump administration has had to deal with internal and external issues that have made it difficult for its tax reform agenda to gain momentum.

Nevertheless, President Trump, administration officials, and House and Senate Republicans have publicly and repeatedly confirmed that tax reform remains a top priority. Following their inability to bring about healthcare reform, they are arguably now under even more pressure to pass meaningful tax reform. Given the potential for federal estate tax repeal as part of broader tax reform, it is important for the estate planning community to take stock of where we are today and consider how to address this uncertainty in our clients' estate plans.

This article briefly summarizes what we know about the proposed repeal of the federal estate tax, discusses what practitioners should be considering when preparing or updating clients' estate plans, and offers practical approaches planners can take to help ensure that clients' goals are met in light of the uncertainty surrounding the federal estate tax.

## **Estate Tax Repeal—Will It Happen, and What Would It Look Like?**

President Trump stated during his campaign that he would repeal the “death tax,” a position that his administration has reiterated on multiple occasions. The administration, the House Committee on Ways and Means, and the Senate Committee on Finance also jointly released an outline of tax reform principles toward the end of September of this year that calls for a repeal of the “death tax” and the generation-skipping transfer (GST) tax.<sup>1</sup> While this contemplates repeal of the federal estate and generation-skipping transfer taxes, it does not appear to cover the gift tax. In addition to the likely resistance that the proposal will receive, President Trump's commitment to repealing the “death tax” (in whatever form that may take) may also be wavering; shortly before the issuance of the tax reform principles in late September, there had been unconfirmed reports that the admin-

istration was considering ultimately abandoning its promise to repeal the “death tax” in an effort to garner more widespread support for its very ambitious tax reform agenda.<sup>2</sup>

There continues to be great uncertainty as to whether there will be “death tax” repeal, what that would encompass, and what, if anything, would replace the tax, but that has not stopped commentators from speculating on each of these points. In particular, based on comments that President Trump made during his campaign, many pundits have suggested that if the federal estate tax is repealed, it could be replaced with a “mark-to-market” capital gains tax on death. This is

## **President Trump’s commitment to repealing the “death tax” may be wavering.**

based on a statement from Trump’s campaign website, which noted that under the Trump tax plan, “capital gains held until death and valued over \$10 million will be subject to tax to exempt small businesses and family farms.”<sup>3</sup> However, subsequent proposals by the Trump administration have been silent on this question. As an alternative, some commentators have suggested that the federal estate tax could be replaced with a carryover basis regime, under which the recipients of property on the death of a decedent would simply inherit the decedent’s basis in the assets. In either of these cases, income tax planning and planning for cost basis would take on increased importance.<sup>4</sup>

Another area of uncertainty is whether a repeal of the federal estate tax would be temporary or permanent. Due to congressional procedural rules, it may be difficult to enact permanent estate tax repeal by vote of a simple majority of the Senate (which is all the Republicans can do at this point, without Democratic support). This may seem familiar to many seasoned estate planners who dealt with a similar question with the 2001 Bush-era tax cuts under the Economic Growth Tax Relief Reconciliation Act of 2001 (EGTRRA). Under EGTRRA, instead of permanent outright estate tax repeal, due to these procedural rules, all the Bush administration could accomplish was a gradual increase to the federal

estate tax exemption amount from 2001 through 2009, followed by temporary repeal of the federal estate tax in 2010, and then reinstatement of the tax in 2011 at pre-EGTRRA exemption levels.

So with all of this uncertainty, what should a prudent estate planner advise his or her clients to do?

### **What Do We Do Now?**

All of the uncertainty surrounding federal estate tax repeal provides a good justification for practitioners to reach out to their clients to ensure that their estate plans will be well positioned to respond to potential changes to the estate and gift tax systems. Regardless of the uncertainty, it is generally a good idea to periodically review existing documents, especially after a life-changing event such as a birth, death, marriage, divorce, change of residence, or significant change of assets, or after a change in the law.

## **Nobody wants to pay a gift tax the day before it is repealed.**

When presented with the current uncertainty regarding the prospects of estate tax repeal, many clients may justifiably prefer to take a “wait and see” approach before spending the time and money updating or formulating their plans.

While this may make sense for some, it should not necessarily be the default approach. If the existing estate planning documents no longer meet the client’s wishes and objectives for whatever reason, or if it is anticipated that the client may not be able to make changes to his or her estate planning documents in the near future, it is generally advisable to move forward with updating the client’s existing estate plans. Of course, clients should think critically before making transfers or entering into transactions that would subject them to payment of gift tax once they have run out of exemption—nobody wants to pay a gift tax the day before it is repealed.

Even for those without an urgently impending need, if a client is waiting for total certainty when it comes to the federal estate tax system, he or she may be waiting a long time. First, the prospect of meaningful tax reform in the near term seems to be less likely than it was at the beginning of the year, as the Trump administration has thus far had a difficult time making progress on other major agenda items. Even if the Trump administration is able to bring about tax reform, and even putting aside the fact that it's not totally clear what that reform would look like in the estate tax context, further changes in the near term are always a possibility (perhaps when the next administration takes office).

For clients inclined to take the “wait and see” approach, it may be helpful to briefly remind them of the roller coaster ride that the transfer tax regime has endured over just the last twenty years. For example, back in 1998, the estate tax exemption amount was \$625,000 under The Taxpayer Relief Act of 1997 and was set to increase gradually to \$1 million in 2006.<sup>5</sup> As mentioned above, a few years later, EGTRRA scheduled increases to the federal estate tax exemption through 2009, with a temporary repeal of the federal estate tax in 2010, followed by a reinstatement of the estate tax in 2011 at pre-EGTRRA exemption levels. Under EGTRRA, the gift tax exemption amount did not increase and was kept at \$1 million during that entire period. Then, the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (the 2010 Act) was passed, which reunified the federal estate and gift tax systems and increased the exemption amount to \$5 million, indexed annually for inflation. The 2010 Act also provided for portability of the deceased spouse's unused exemption amount.<sup>6</sup> Despite serious concerns that pre-2010 Act exemption amounts would be reinstated, the exemption amounts from the 2010 Act were made permanent by the American Taxpayer Relief Act of 2012,<sup>7</sup> though politicians and voters have repeatedly called for repeal and other changes since then. From just 1998 to the present, the federal estate and gift tax rates have fluctuated significantly, ranging from 35% to 55% (not counting the 0% federal estate tax rate applicable to certain decedents dying in 2010).

Bottom line: a client who decided to postpone addressing his or her estate plan in 1997 until there was certainty regarding the federal transfer tax regime might still be waiting.

The good news for individuals who may want or need to prepare or update their estate plans today is that practitioners have the tools to account for changes

to the client's family dynamics or changes in the tax laws (such as the possibility of federal estate tax repeal) by crafting documents that have sufficient flexibility to deal with changing circumstances. Some of the ways in which practitioners can build this flexibility into clients' documents are discussed below, together with sample language.

## **Planning for Repeal**

Once client and attorney have decided to move forward—either with an update of the existing estate planning documents or entirely new estate planning—the prospect of federal estate tax repeal, and the general desirability for flexibility to account for changing circumstances, should be kept in mind. The following is a discussion of examples of some of the provisions in existing documents that should be carefully reviewed and potentially updated in light of potential estate tax repeal, as well as a discussion of specific provisions, types of trusts, and other planning methods that may be advisable to include to further these objectives.

### **WILLS AND REVOCABLE TRUSTS**

With the looming prospect of estate tax repeal, it may be advisable for practitioners to revisit existing wills and revocable trusts with their clients. For new documents, practitioners should build in the flexibility to achieve their client's goals whether or not there is a federal estate tax in place at the client's death. A discussion of key considerations, issues, and potential solutions follows.

### **Funding Formulas**

If repeal were to occur, practitioners would need to consider whether any formula clauses in their clients' documents still make sense. Although clients with existing plans in place may be hesitant to incur the cost of reviewing and updating their documents, a failure to review these provisions could subvert their intent.

### **Credit Shelter Trusts**

For example, married couples who might be subject to federal and/or state estate tax often fund credit shelter trusts (also referred to as bypass trusts) by a fixed formula in the will or revocable trust. The formula typically provides that

---

the credit shelter trust is to be funded with an amount equal to the largest share of the decedent's estate that can pass free of federal estate tax. With several states having estate tax exemption amounts at or below the federal level, formulas for residents of those states often limit the amount passing to the credit shelter trust to the state exemption amount so as not to trigger a state estate tax.

Depending on the exact wording of the mandatory credit shelter funding clause, if the federal (and any applicable state) estate tax is repealed, this could result in all of the estate assets passing to the credit shelter trust. This may not be desirable, as the client may not want all of his or her assets tied up in a credit shelter trust if there is no estate tax benefit.<sup>8</sup> In fact, depending on the applicable rules at that time, there may actually be an income tax disadvantage to this approach; under current law, assets in the credit shelter trust would generally not receive a "step-up" in basis at the death of the surviving spouse.

In addition, if the formula clause is based on the federal estate tax, and as a result of federal estate tax repeal all estate assets pass to a credit shelter trust, then to the extent there is a separate state estate tax, the formula could inadvertently trigger state estate tax, which could have otherwise been avoided or minimized. This is because funding the credit shelter trust with an amount in excess of the state estate tax exemption will expose the assets to that state's separate estate tax. This is even more problematic for decedents subject to New York State estate tax. New York law provides for a phase-out of the New York estate tax exemption available to a decedent when his or her New York taxable estate exceeds the exemption amount. In fact, the New York estate tax exemption is completely lost if the taxable estate exceeds the exemption amount by more than 5%.<sup>9</sup> So, an overfunded credit shelter trust for a New York State resident decedent can have serious consequences, as it could subject the entire amount to New York estate tax, without the benefit of a New York exemption.

The following provision to be included in the will addresses this problem by limiting the application of the formula clause to situations where a federal or state estate tax is in existence, and has the added benefit of protecting the client against a future reinstatement of the federal or state estate tax:

If my spouse survives me, and there is a Federal [or State] estate tax in effect as of the date of my death, my Executors shall distribute a sum equal to the maximum amount, if any, that can pass free of Federal

[and State] estate tax payable by reason of my death, after taking into account all credits available against such taxes, to the Trustees of the trust created under the Article hereunder entitled Credit Shelter Trust. If there is no applicable Federal estate tax [and there is no applicable State estate tax] in effect as of the date of my death, then the bequest to the Trustees of the trust created under the Article hereunder entitled Credit Shelter Trust shall lapse.

Practitioners should of course tailor this and the other sample provisions contained throughout this article to their clients' unique facts and circumstances and the nuances of any applicable state estate tax laws. This clause, in particular, could also be further modified depending on the nature and form of estate tax repeal (for example, further modification may be desired if a capital gains tax were implemented to replace the federal estate tax).

### **Marital Trusts**

Conversely, the funding formula sometimes applies to the amount passing to the surviving spouse or marital trust. The balance not passing to the surviving spouse or marital trust would then pass to the credit shelter or bypass trust. Many of the same considerations discussed above apply, and the following is a sample clause to be included in the will to address this scenario:

If my spouse survives me, and there is a Federal [or State] estate tax in effect as of the date of my death, I give my spouse the smallest amount that will minimize the Federal [and State] estate tax payable with respect to my estate. If there is no applicable Federal estate tax [and there is no applicable State estate tax] in effect as of the date of my death, then I give my spouse, if my spouse survives me: [my entire residuary estate].

### **GST Trusts**

Additionally, if the GST tax is repealed, bequests to grandchildren or more remote descendants, or trusts for their benefit that were designed to use GST exemption, should be revisited. Similar to the formula bequests to a credit shelter trust or marital trust, discussed above, a GST bequest may have a funding formula that may no longer be appropriate. In addition, the bequest itself may have

---

only been included for GST tax savings reasons, and with no GST tax, the client may no longer wish to make such a bequest at all. The decision to remove such a bequest should also factor in the possibility that the federal estate or GST tax could be reinstated in the future.

## **Disclaimer to Credit Shelter Trusts**

As noted above, credit shelter trusts are commonly used in estate planning documents. An advantage of the credit shelter trust under current law is that it permits the surviving spouse to make use of the deceased spouse's unused federal (and/or state) estate tax exemption amount. This benefit became somewhat less important with the ability of a surviving spouse to effectively inherit his or her deceased spouse's unused estate tax exemption via portability. However, because (i) there are a number of nuances to the portability rules, (ii) a deceased spouse's GST exemption is not portable, and (iii) many states with separate state estate taxes do not permit portability, there are still benefits to the use of credit shelter trusts under current law.

Amounts passing to the credit shelter trust should not be included in the surviving spouse's estate for estate tax purposes and, thus, would pass free of federal (and/or state) estate tax following the surviving spouse's death. However, if there is no applicable estate tax in effect, this may not actually provide any value.

Given the benefits of the credit shelter trust in a world with an estate tax, and the relative lack thereof in a world without an estate tax,<sup>10</sup> there is option value in deferring the decision of whether to fund a credit shelter trust for as long as possible. One way to preserve this optionality is to leave the entire estate to the surviving spouse, while also giving the surviving spouse the ability to disclaim all or any portion of the bequest. If the surviving spouse disclaims some or all of his or her interest in the bequest, the disclaimed property could pass to a credit shelter trust. An example of a provision to be included in a will that would allow for a disclaimer to a credit shelter trust follows:

I leave my residuary estate to my spouse, if my spouse survives me. If my spouse renounces and disclaims all or any portion of the gift made under this paragraph, then such disclaimed property instead shall be distributed to the Trustees of the trust created under the Article hereunder entitled Credit Shelter Trust. Any renunciation and

disclaimer made under this paragraph may also be made by such person, acting on my spouse's behalf, as permitted under applicable law. To be effective under this paragraph, any renunciation and disclaimer must meet the requirements of a "qualified disclaimer" under Sections 2518 and 2046 of the Internal Revenue Code or any successor thereto, if applicable, and the requirements for a valid renunciation and disclaimer under applicable state law.

Including such a provision in the will would provide significant flexibility for the surviving spouse, who could make the appropriate decision in light of more complete information about the federal and state estate tax laws in effect at that time.

When determining whether or not to disclaim all or a portion of the bequest to a credit shelter trust, the surviving spouse or his or her advisors should also consider the income tax consequences. Assets passing to a credit shelter trust generally do not receive a second step-up in basis on the surviving spouse's death (at least under current law). Thus, appreciation in the value of the assets passing to the credit shelter trust between the death of the first and second spouses will eventually be subject to capital gains tax on disposition, absent additional planning. By contrast, under current law, if the assets passed outright to the surviving spouse, those assets would ultimately receive an additional step-up in basis on the surviving spouse's death. In a scenario with no estate tax, this second step-up in basis would likely be more valuable than keeping the assets out of the surviving spouse's estate altogether. If, on the other hand, a carryover basis regime were implemented in place of the estate tax, the second step-up in basis would not be applicable even if the assets were to pass outright to the surviving spouse.

Although the disclaimer method provides flexibility, vesting the decision in the surviving spouse gives the surviving spouse a significant amount of power and responsibility, which may not be appropriate in all situations. For example, granting the surviving spouse this level of discretion may not be advisable in the case of a second marriage with children from the first relationship.

## **Clayton Provisions**

"Clayton" provisions, so named after the case that confirmed their viability,<sup>11</sup> are similar to disclaimer clauses, except that they give the decision-making power

---

to a fiduciary. In this scenario, assets passing to the marital trust for which a qualified terminal interest property (QTIP) election is not made would instead pass to a credit shelter trust. An example of such a provision follows:

If my spouse survives me, I direct that my residuary estate shall be distributed to the Trustees of the trust created under the Article hereunder entitled Marital Trust; provided, however, that if the Federal estate tax is in existence at the time of my death, and if any portion of the gift is not elected to qualify for the Federal estate tax marital deduction, such portion shall instead be distributed to the Trustees of the trust created under the Article hereunder entitled Credit Shelter Trust.

The “Clayton” approach is similar to the use of a disclaimer clause in the sense that it maintains the flexibility to adjust the disposition of assets on the first spouse’s death in light of the federal and state estate tax law in effect at that time. An added benefit of the Clayton provision is that the complex tax considerations can be left in the hands of an independent fiduciary who is an expert on the subject.

For practitioners with clients who may be subject to a separate state estate tax, it may be advisable to modify the above clause to also address those state estate tax considerations. For example, if there is no federal estate tax in existence but there is a separate state estate tax, it still may make sense in certain situations to fund a credit shelter trust to absorb the state estate tax exemption of the decedent spouse (or to shelter assets from a federal estate tax if it is later reinstated). One complication is that depending on the laws of the applicable state, there may be limitations on the ability to make a separate state QTIP election if no federal QTIP election is made (which may be the case if there is no federal estate tax). Below is a further discussion on considerations relating to QTIP trusts.

## **QTIP Trusts**

Marital trusts (and QTIP trusts in particular) are commonly used in estate plans as a mechanism to obtain the benefits of a trust (as opposed to an outright disposition), while also not jeopardizing the marital deduction and the resulting deferral of the payment of estate taxes until the death of the surviving spouse. Presumably, if the federal estate tax is repealed, it will no longer be possible (or

necessary) to make a QTIP election for federal purposes. However, while the need to defer federal estate tax may become irrelevant, deferring state estate tax until the death of the surviving spouse by use of a marital trust may still be desirable. It would thus be important to confirm whether the applicable state will allow for a separate state QTIP election. Alternatively, use of a general power of appointment trust (GPA Trust), as opposed to a QTIP trust, should be considered to address this issue. A GPA Trust is one in which the surviving spouse retains a general power of appointment on his or her subsequent death, thus resulting in the same estate tax deferral as a QTIP trust.

Inclusion of a provision in the will such as the following would grant the surviving spouse a general power of appointment:

I give my spouse power to appoint the entire principal of the marital trust, exercisable in favor of my spouse or in favor of my spouse's estate or in favor of both, as well as in favor of others. Such power to my spouse to appoint the principal in favor of [himself/herself] may be exercised in whole or in part at any time or from time to time, any such exercise to be by instrument signed by my spouse and delivered to my Trustees. Such power of my spouse to appoint the principal in favor of my spouse's estate, as well as in favor of others, shall be exercised by my spouse's last will and testament, and in so far as my spouse exercises such power by such will, my spouse may appoint the principal in any shares and manner, outright or in lesser estates, or in trust or otherwise. In default of such appointment by my spouse, my Trustees shall upon my spouse's death pay over to the principal of the marital trust (or if my spouse shall not effectually appoint all of such principal, then my Trustees shall upon my spouse's death pay over such part of the principal as my spouse shall not effectually appoint) as follows: [insert alternative disposition].

Despite its advantages, this approach may not be appropriate for all clients. Similar to the issues discussed above with use of a disclaimer into a credit shelter trust, giving the surviving spouse a general power of appointment vests significant discretion to the surviving spouse. This discretion could be troublesome where the client is not entirely comfortable that the surviving spouse will follow through with the desires of the predeceased spouse (for example, where there are children from prior marriages).

---

## Qualified Domestic Trusts

Thought must also be given to marital trust planning for surviving spouses who are not U.S. citizens. Under current law, the federal estate tax marital deduction is only available for transfers to surviving non-citizen spouses if the assets passing to the non-citizen spouse are held by a qualified domestic trust (QDOT). QDOTs are similar to QTIP trusts, although principal distributions to the surviving spouse, as well as final distributions following the surviving non-citizen spouse's death, are subject to a deferred federal estate tax as though the assets had been included in the deceased spouse's estate. Assets passing to QDOTs are subject to strict requirements, which are set forth in the Internal Revenue Code (the Code) and corresponding Treasury regulations.<sup>12</sup> If the federal estate tax is repealed, use of such trusts may no longer be desirable. While again not appropriate for all clients, if provisions are made for non-citizen spouses, it may be preferable to leave the assets to the non-citizen spouse outright. Unlike the funding of most trusts on death, there is a window of time following the decedent's death in which the surviving spouse can create and fund the QDOT trust.<sup>13</sup> This approach may be preferable, as it provides flexibility to determine whether a QDOT trust is appropriate, based on the status of the federal estate tax at that time.

## Apportionment Clauses

Apportionment clauses in wills and revocable trusts can provide for the allocation of taxes, debts, and expenses attributable to the decedent's estate and can have a significant impact on the net amounts that the beneficiaries actually receive.

Even if the federal estate tax is repealed, given the long history of changes in this area, it is conceivable that it will be reinstated at some point in the near future. In addition, even if it is repealed, it is not totally clear what replacement tax, if any, would result. One way of dealing with this uncertainty as it relates to the apportionment clause would be for practitioners to retain their standard apportionment clauses and simply modify the description of what taxes are included to account for potential replacement regimes.

An example of a definition of "Death Taxes" to be used in the apportionment clause follows:

Death Taxes. “Death Taxes” means all estate, inheritance, succession, capital gains or other transfer taxes and any similar taxes on appreciation, including interest, penalties and any excise or supplemental taxes, imposed by any domestic or foreign jurisdiction by reason of a person’s death, but shall not include generation-skipping transfer taxes imposed by Chapter 13 of the Code, other than such taxes attributable to a direct skip of which I am the transferor, unless such direct skip is caused by a qualified disclaimer by a non-skip person (as those terms are defined in the Code).

Given the current uncertainty as to what system would replace the federal estate tax, this solution is merely a temporary one, and if a new system is enacted, these provisions should be carefully reviewed to make sure they are still appropriate. As is currently the case, it is important to also consider which beneficiaries bear the tax burden in the apportionment clause.

Finally, as is also currently the case, to the extent a client establishes a “pour-over” will coupled with a revocable trust, practitioners should ensure that the apportionment clauses in each document are coordinated and work together in a consistent manner.

## **LIFETIME TRUSTS**

Some commentators have speculated that if President Trump’s tax reform goes into effect, it will reduce the number of lifetime trusts that are established. The rationale for this is that a primary motivator behind the creation of most trusts is reduction of estate taxes, which would no longer be relevant under President Trump’s tax plan (as there would be no federal estate tax to reduce). However, those commentators are not focusing on the many other benefits that trusts offer. Those benefits include the following:

- Serving as a “testamentary substitute.” By putting dispositive provisions in a trust, as opposed to a will, this may help to limit expense, delay, and administrative hassle involved with probate or surrogate’s court proceedings.
- Creditor protection for the donor and/or the beneficiaries.

- Protection from matrimonial claims against beneficiaries. Trusts can work in conjunction with, or to some extent serve as a substitute for, matrimonial agreements.
- Relieving the beneficiaries from responsibility associated with managing the assets by appointing a separate trustee. This is especially advantageous for young beneficiaries or beneficiaries who lack business or investment experience.
- Addressing the concern that outright ownership may serve as a disincentive for the beneficiary to work, go to school, or become a productive member of society.
- Providing other tax benefits, beyond federal estate tax. For example, state estate tax can potentially be saved, and there may also be opportunities to avoid state income taxation in certain situations.<sup>14</sup>

In addition, if transfer tax considerations are removed by tax reform (for example, if the gift tax is also repealed), then lifetime trust creation may actually increase as a result. This is because transfer taxes serve, to some extent, as a limitation on what can be transferred into a trust to achieve most of the above non-tax objectives. For example, gifts to a trust may be limited to the annual exclusion amount or unified credit. Those limitations effectively disappear if there is no transfer tax system to worry about.

Of course, many of the same drawbacks to the use of trusts would still apply. From a tax perspective, one of the main trade-offs to the establishment of a lifetime trust that is a completed gift for gift tax purposes is the probable loss of a step-up in basis for the assets in the trust on the death of the grantor. With the increased importance of income tax planning due to the rise of income tax rates, and the somewhat decreased importance of estate tax considerations due to high estate tax exemptions and estate tax rates that are off of their highest amounts, this trade-off needs to be seriously considered and analyzed. In addition, assuming transfer tax considerations are no longer relevant due to tax reform (a major assumption, indeed), then one of the primary remaining downsides to

**Flexibility is key with the looming prospect of tax reform.**

the use and funding of lifetime trusts is the donor's loss of control and ability to enjoy the trust funds. While complete control often undermines the objectives of the trust, the donor, trusted friends, family members, or advisors can still be given significant authority. This concern can also be ameliorated, somewhat, by building in flexible trust provisions.

As discussed above, a flexible structure is particularly key with the looming prospect of tax reform. With flexibility built into a trust, clients can move forward with traditional estate planning to make use of the estate and gift tax exemption and benefit from some of the other non-tax advantages to the use of trusts, while providing mechanisms to deal with changing circumstances, including the ability to unwind the entire structure if it no longer makes sense.

Below are several strategies and options to provide this flexibility for a client who is looking to make use of the exemption now by making lifetime gifts to trusts.

### **Spousal Limited Access Trust**

The Spousal Limited Access Trust (SLAT) is one way in which clients who wish to make gifts now can do so, while retaining an "escape valve" if the structure is no longer desirable, such as in the event the federal estate tax is repealed.

The SLAT was a particularly popular planning device in 2012, when the prospect of a steep reduction in the federal estate tax exemption loomed and there was a rush to make year-end gifts. That same strategy is also attractive with the current uncertainty surrounding the prospects of federal estate tax repeal. In the typical SLAT, a married grantor uses some or all of his or her gift tax exemption to make a completed gift to a trust of which the grantor's spouse is one of the discretionary beneficiaries (often, together with descendants). If, at a later time, there is a desire to unwind the trust, the trustee (who should not be the grantor or spouse) could simply distribute the assets to the grantor's spouse. Depending on the relationship between the grantor and the grantor's spouse, a distribution back to the spouse could effectively be the same as a distribution back to the grantor.

To maximize the exemption from both spouses, it was common to establish reciprocal SLATs, where each spouse would set up a SLAT to benefit the other. In that plan, however, it was (and still is) important to be mindful of the reciprocal trust doctrine, under which the IRS could treat the trusts as so interrelated that

---

“the arrangement, to the extent of mutual value, leaves the settlors in approximately the same economic position as if they had created trusts naming them as life beneficiaries,” and therefore the trusts and their assets would be included in the settlor’s estate for estate tax purposes.<sup>15</sup>

While there is not a bright-line test to assess whether the reciprocal trust doctrine will apply, it is important to draft substantive differences into the terms of both SLATs to avoid this treatment. For example, granting one spouse, but not the other, a power to appoint the property in the trust of which he or she is a beneficiary may counter the potential application of the reciprocal trust doctrine.<sup>16</sup> Varying the distribution standards and the classes of beneficiaries in the two trusts may also lower the chances of the IRS applying the reciprocal trust doctrine.<sup>17</sup>

## **Self-Settled Asset Protection Trust**

A “self-settled asset protection trust” is another example of a flexible structure that could enable clients to advance their trust and tax planning today, while preserving their flexibility to deal with changes to applicable estate tax laws. Donors who establish a self-settled asset protection trust can, for example, retain the possibility of receiving back trust assets if it is later determined that unwinding the trust is advisable.

Under traditional common law principles, a creditor of a settlor can generally reach the trust property to the maximum extent that the trustee can distribute property to the settlor. This results in the assets of the trust being includable in the settlor’s taxable estate for estate tax purposes.<sup>18</sup> However, several states have enacted statutes that reverse this traditional common law approach and allow for individuals to create irrevocable trusts in which they retain the ability to receive distributions at the discretion of an independent trustee, while seeking to preserve the creditor and estate tax protection that would have been afforded to the trust had the settlor not been named as a discretionary beneficiary. These trusts are often referred to as “self-settled spendthrift trusts,” or “self-settled asset protection trusts.”

Statutes permitting asset protection trusts generally include requirements that the trust (i) be irrevocable, (ii) invoke the law of the resident state, (iii) have a resident trustee, (iv) have at least some of the assets located in the state, and (v) have certain administrative activities with respect to the trust occur within the state.

If the statutory requirements are met, most actions commenced within the state by the settlor's creditors against the trust property are prohibited. There are, however, exceptions for fraudulent conveyances and tort injuries occurring on or before the date of transfer to the trust, and in certain asset protection jurisdictions, for claims for marital and child support depending on the timing of the funding of the trust or the date of the claim.

Estate planners who are interested in exploring the flexible nature of self-settled asset protection trust laws are advised to pay careful attention to the requirements of the statutes and other pertinent local laws and to work closely with local counsel. Additionally, practitioners should flag for clients in states that have not enacted self-settled asset protection legislation the possible conflict-of-law concern that a creditor's claim in that non-self-settled asset protection jurisdiction may be successful in spite of the purported creditor protection of such a trust.<sup>19</sup>

If such planning is pursued, it may be beneficial to include provisions in a spendthrift clause that specifically refer to the particular asset protection statute. For example, the following is sample language for a self-settled asset protection trust created under Nevada law:

It is the Grantor's intent that during the Grantor's lifetime this trust shall qualify as a spendthrift trust for the benefit of the Grantor pursuant to NRS § 166.010 et seq. Notwithstanding anything in this Agreement to the contrary, any power, duty or discretionary authority granted to the Trustees, Trust Protectors, the Grantor or any other person shall be absolutely void to the extent the right to exercise such power, duty or authority would in any way jeopardize the trust's status under NRS § 166.010 et seq., or otherwise cause the assets of the trust to become subject to the claims of the creditors of the Grantor (other than creditors whose claims are permitted under the timing requirements set forth in NRS § 166.170).

Additional suggested language, plus the contemporaneous execution of an affidavit as to the solvency of the donor, may be advisable. So again, consultation with local counsel is strongly encouraged.

## Other Reserved Powers

There are myriad other powers that a settlor (or other trusted family members or friends) can retain that can allow an element of control over an irrevocable trust, while still preserving the intended tax treatment of the trust. These powers, coupled with some of the techniques discussed above, can further give comfort to a settlor that he or she will be able to account and adjust for later changes of circumstances, such as the potential repeal of the federal estate tax.

For example, a settlor can have the power to remove the trustee and appoint a successor in such removed trustee's place. In order not to jeopardize the estate tax treatment of the trust, the settlor should not have the power to appoint a "related or subordinate" person as successor to the removed trustee.<sup>20</sup> With that relatively narrow limitation, this power would allow the settlor to change the trustee for any reason, including, for example, if the trustee refused to make a distribution that the settlor believed to be advisable. This would include a distribution of the entirety of the trust to effectively unwind the trust if it no longer makes sense in light of changes to the tax laws. If an existing trustee were not willing to take such an action, the settlor could then appoint a successor trustee who the settlor believed would be more likely to take the requested action.

It may also be beneficial to provide mechanisms for modifying the terms of a trust, even if it is an "irrevocable" one. For example, it may be advantageous to include a clause in the trust that allows for administrative or other amendments, so long as they do not impact the beneficial interests in the trust. The following is sample language that can be included in a trust:

The Trustee may amend any portion of this Agreement in writing from time to time to state expressly any such additional powers and authority or otherwise to change the provisions of this Agreement in any manner that the Trustee deems necessary or advisable, including for tax purposes. Nevertheless, no power granted to the Trustee in this paragraph grants any implied power to change beneficial interests under any trust. In exercising these powers and in amending the provisions of this Agreement, the Trustee shall observe the general fiduciary duties of loyalty, good faith, fairness and due care and shall act in a manner consistent with the Settlor's intent as expressed in this Agreement.

Another increasingly popular way to effectively amend an otherwise irrevocable trust would be to grant the trustee the ability to “pour” trust assets into a new trust with different (more favorable) terms. This is known as a trust “decanting,” and while several states have statutorily enabled trustees to distribute trust assets to a new trust for the benefit of the beneficiaries of the existing trust, it may be advisable to specifically authorize a decanting in the trust itself.<sup>21</sup>

There are multiple ways to establish a lifetime trust in a way that allows for flexibility to account for later changes, including changes to the tax law. It is important for practitioners to work closely with their clients and build in the flexibility that is best suited for the clients and their particular facts and circumstances.

## Conclusion

With so much uncertainty surrounding whether we will see tax reform, what it will look like, and what the timing will be for enactment, estate planning advisors and their clients are left in a state of limbo. However, for many practitioners, this should be a familiar feeling, given the many changes and proposals that we have encountered in the U.S. transfer tax system, even in just the last twenty or so years. If nothing is certain except for death and taxes—and now we can’t even count on death taxes—it is becoming more important than ever before for planners to consider adding flexibility, including some of the suggestions made in this article, to their clients’ estate planning documents.

---

Robert W. Sheehan and Michael S. Schwartz are authors of PLI’s [Stocker on Drawing Wills and Trusts](#).

---

## NOTES

1. WHITE HOUSE, UNITED FRAMEWORK FOR FIXING OUR BROKEN TAX CODE (Sept. 27, 2017), [www.treasury.gov/press-center/press-releases/Documents/Tax-Framework.pdf](http://www.treasury.gov/press-center/press-releases/Documents/Tax-Framework.pdf); *see also* Press Release, U.S. Dep't of Treasury, Unified Framework for Fixing Our Broken Tax Code (Sept. 27, 2017), [www.treasury.gov/press-center/press-releases/Pages/sm0166.aspx](http://www.treasury.gov/press-center/press-releases/Pages/sm0166.aspx).
2. Amanda Becker, *White House Weighs Abandoning Estate Tax Repeal in Republican Tax Push*, REUTERS (Sept. 19, 2017), [www.reuters.com/article/us-usa-tax-estate/white-house-weighs-abandoning-estate-tax-repeal-in-republican-tax-push-idUSKCN1BU2YS](http://www.reuters.com/article/us-usa-tax-estate/white-house-weighs-abandoning-estate-tax-repeal-in-republican-tax-push-idUSKCN1BU2YS) (last visited Sept. 25, 2017).
3. *Tax Plan*, DONALD J. TRUMP (Nov. 5, 2016), [www.donaldjtrump.com/policies/tax-plan](http://www.donaldjtrump.com/policies/tax-plan) [<https://web.archive.org/web/20161105190533/https://www.donaldjtrump.com/policies/tax-plan>].
4. This has been a trend over the last several years, regardless of the prospect of estate tax repeal, due to a combination of factors including rising income tax rates, increasing estate tax exemption amounts, and estate tax rates that have come down from their highs.
5. Taxpayer Relief Act of 1997, Pub. L. No. 105-34, 111 Stat. 788 (effective for gifts made, and the estates of decedents dying, after December 31, 1997).
6. Job Creation Act of 2010, Pub. L. No. 111-312, 124 Stat. 3296.
7. American Taxpayer Relief Act of 2012, Pub. L. No. 112-240, H.R. 8, 126 Stat. 2313.
8. Although it may be beneficial if the estate tax is later reinstated.
9. N.Y. TAX LAW § 951(a), as amended by 2014 A.B. 8559/S.B. 6359 (N.Y.) (effective Apr. 1, 2014).
10. Note that there still may be some advantages to the use of a credit shelter trust even if there is no estate tax. Some of the non-tax advantages to the use of trusts are discussed below in this article. In addition, there still may be a benefit to a credit shelter trust if the estate tax is reinstated.
11. *Estate of Clayton v. Comm'r*, 97 T.C. 327 (1991), *rev'd*, 976 F.2d 1486 (5th Cir. 1992).
12. 26 U.S.C. § 2056(A); 26 C.F.R. § 20.2056A-4.
13. 26 U.S.C. § 2056(A)(d).
14. For example, an “incomplete non-grantor trust” such as a DING, NING, or SDING trust may be used by grantors in high-income-tax states to try to avoid the applicable state income tax. However, such planning is no longer viable for residents of states such as New York, which have statutorily eliminated the benefit of using such trusts.
15. *United States v. Estate of Grace*, 395 U.S. 316 (1969).
16. *Estate of Levy v. Comm'r*, T.C. Memo 1983-453 (1983).
17. I.R.S. Priv. Ltr. Rul. 200426008 (Mar. 10, 2004).
18. 26 C.F.R. § 25.2511-2; Rev. Rul. 76-103, 1976-1 C.B. 293(1976).
19. For a discussion of the conflict-of-law issues, see DAVID G. SHAFTEL, ELEVENTH ANNUAL ACTEC COMPARISON OF THE DOMESTIC ASSET PROTECTION TRUST STATUTES (Aug. 2017),

[www.actec.org/assets/1/6/Shaftel-Comparison-of-the-Domestic-Asset-Protection-Trust-Statutes.pdf](http://www.actec.org/assets/1/6/Shaftel-Comparison-of-the-Domestic-Asset-Protection-Trust-Statutes.pdf).

20. Rev. Rul. 95-58, 1995-2 C.B. 191.
21. Including decanting language in the trust itself may have the benefit of allowing for a decanting without having to strictly adhere to the statutory requirements. *See, e.g., In re Hoppenstein*, No. 2015-2918/A, 2017 NY Slip Op. 30940(U), 2017 WL 1969401, NYLJ 1202784244139, at \*1 (N.Y. Sur. Ct., N.Y. Cty., Mar. 31, 2017).

# The Current

## The Journal of PLI Press

---

Vol. 1, No. 2, Autumn 2017

## Counseling on Cannabinoids: Making Sense of Marijuana and Preemption

**James T. O'Reilly**

*University of Cincinnati College of Medicine*

“Desuetude,” “forbearance,” “cannabinoids”—it might sound like the finals of a spelling bee competition, but these words will be part of the vocabulary for lawyers who practice in the hottest growth area of small business development: the marijuana industry. And yes, “industry” describes the state-lawful marijuana trade, with billion-dollar projections, and now with several of the attributes that mark growth areas, including a stock market fund (or two) seeking to aggregate investments in the growth of this marketplace.

For most solo or small-firm lawyers, the issue arises with one phone call. A new client wants advice about conversion of an older industrial warehouse into a

\$700,000 Grow Zone with specialized lighting, temperature-controlled watering devices, and humidity-monitored drying racks for hydroponic growth of marijuana. How do you respond?

In any other context, research sources can provide the appropriate response to questions about mortgage lending, equipment leasing, procurement contracts, employee qualification screening, and the like. But with marijuana, the looming presence of Trump administration conflicts with the states poses a significant uncertainty.

In this case, the best response to the client should be: “I’m very glad to help you with all of the industrial and commercial aspects of the transaction, just as I would if you were raising similar plants for growing spices or growing hemp, a comparable plant that goes into making ropes. But I have an ethical obligation to caution that we can’t predict the actions of the Trump administration, which is one tweet away from declaring a DEA and FBI crackdown on this industry. There is a federal law—the Controlled Substances Act (CSA)—that has the power to overcome state laws such as the marijuana law adopted here in our state. But as long as the current acceptance of state laws by federal government inaction continues, I can guide you with all the details of this transaction.”

Small business entrepreneurs in America have traditionally “pushed the envelope” of conventional wisdom, often changing the “envelope” for the better by taking risks at the margin of prior industrial practice. Overnight delivery of merchandise? Motion pictures over computer cables? Credit authorized by a chip in a plastic card? But making new industry changes under threat of federal imprisonment is a riskier undertaking.

What is different about the marijuana entrepreneurs is that they seem to be displacing both the prior legal prohibitory system and the prior illegal system; the reputation change of “weed dealers” has been subtle but dramatic. No Central American drug cartels with tough enforcers are experimenting to diminish the effect of mold in the indoor drying of hydroponic cannabis. The announcement by Scotts’ Miracle Grow that it will invest hundreds of millions on cannabis production improvements was a signal of future agronomy directions. Banks that are compelled to avoid any handling of the Medellin cartel’s very tainted cash flow from marijuana sales are eager to find a mechanism to handle the more legitimate proceeds of grower-dispensary transactions through credit unions or

---

through state-managed financial mechanisms like the new Ohio payment processing system. Creativity is flowering faster than buds on an automatically watered, temperature-controlled rack of gene-improved cannabis plants.

And now the wild card: “WWJSD?” What will Jeff Sessions direct his staff inside the Department of Justice to do about cannabis marketplaces in states that have authorized medical marijuana dispensaries, recreational marijuana sales, or both?

For the answer, we start 225 years ago in Philadelphia, as the drafters debated the Tenth Amendment to the new Constitution: “The powers not delegated to the United States by the Constitution, nor prohibited by it to the states, are reserved to the states respectively, or to the people.” The Commerce Clause in Article I allows the Congress to use its delegated power to regulate “controlled substances” in title 21 of the U.S. Code, so these powers are not “reserved” to a state whose voters chose to permit marijuana for recreational or medical use.

Treatises on preemption of state powers can construe the Tenth Amendment in voluminous detail, as my text has done.<sup>1</sup> Constitutional law classes spend an hour or so of 1-L class time on the doctrine’s more recent Supreme Court jurisprudence. Younger law professors who seek tenure will squeeze every possible nuance out of the Court’s 5-4 or 6-3 decisions in order to find meaning in their over-long articles that despair about the muddled case law. This does not help the actual practicing lawyer, for whom preemption is a distant pre-Bar Exam memory.

Here is the practice-oriented lawyer’s insight: Avoid malpractice claims. None of the state legal structures and state compliance activities are 100% assured to protect the reputable participant in the marijuana market. The federal Controlled Substances Act<sup>2</sup> is not perfect, but it’s potent. CSA preemption of state laws *could* be used to shut down a legitimate client’s state-regulated (or even state-sponsored) marijuana activity. Marijuana is a Schedule I substance under the CSA,<sup>3</sup> and has been so for years, as a result of a historical view of drug abuse in the 1930s that has not been altered by the pleas of state officials and legislators. Federal regulators insist that marijuana remain tightly controlled:

[W]hen it comes to a drug that is currently listed in schedule I, if it is undisputed that such drug has no currently accepted medical use in treatment in the United States and a lack of accepted safety for use under medical supervision, and it is further undisputed that the drug has at least some potential

for abuse sufficient to warrant control under the CSA, the drug must remain in schedule I. In such circumstances, placement of the drug in schedules II through V would conflict with the CSA since such drug would not meet the criterion of “a currently accepted medical use in treatment in the United States.”<sup>4</sup>

The enforcer of the CSA within the Department of Justice is the Drug Enforcement Administration,<sup>5</sup> whose leader is selected by Attorney General Jeff Sessions, and whose leaders have declined to change (“down-schedule”) the treatment of marijuana.<sup>6</sup> Someday the Congress could order the administration to not spend

## **Here is the practice-oriented lawyer’s insight: Avoid malpractice claims.**

appropriated funds on enforcement of marijuana laws in states with marijuana legalization. Even less likely is a near-term congressional direction to remove marijuana from CSA Schedule I. But neither prospect is timely enough to satisfy a risk-averse client.

The future? As a longtime expert in federal approval mechanisms for drugs,<sup>7</sup> I believe marijuana will be removed from Schedule I and the FDA will be tasked to extend the oversight of marijuana and enforce quality standards for its food and combustion forms. We just don’t know when. Cannabinoid forms of candies, lollipops, oils, etc. pose a child ingestion risk. Counterfeit and false forms of *Cannabis sativa* proliferate in the absence of an enforceable quality standard. Dusting of cannabis leaves with fentanyl and other life-threatening active drug ingredients would pose a severe inhalation toxicity risk to smokers.

Desuetude, the lapse of un-utilized authority, is unlikely because some forms of legislative action must eventually occur. Forbearance, the choice not to act on enforcement of a law, is discretionary for the Trump administration.

So your message to the client today should express cautious optimism. But federal preemption of the permissive state marijuana legislation and rules *could*

occur: The Controlled Substances Act *could* be invoked; the work the client is proposing to do *could* be shut down; and the proceeds and assets *could* be subject to forfeiture, as proceeds of an illegal transaction with a Schedule I controlled substance.

**Your message to the client today should express cautious optimism.**

You can ethically tell your client that you predict there will be an eventual federal and state accommodation of marijuana controls, so long as you explain the contingency: No state law will protect your client against the risk that a Trump tweet or a Sessions speech may signal the federal re-assertion of powers of control and especially powers for the forfeiture of the client's proceeds and instruments of transactions involving marijuana, as long as it remains a Schedule I controlled substance.

Wish the client well, apply these caveats about preemption, and encourage him or her to stay in touch as this smoky haze clears in the future.

---

Prof. James T. O'Reilly teaches at the University of Cincinnati College of Medicine and chairs the ABA Administrative Law Section's Committee on Food & Drug Law. He is the author of PLI's [Consumer Product Safety Regulation: Impact of the 2008 Amendments](#).

---

**NOTES**

1. JAMES O'REILLY, *FEDERAL PREEMPTION OF STATE & LOCAL LAWS* (ABA Press 2006).
2. 21 U.S.C. § 801, Pub. L. No. 91-513, 84 Stat. 1242.
3. U.S. DRUG ENFORCEMENT ADMIN., CONTROLLED SUBSTANCES—ALPHABETICAL ORDER (July 17, 2017), [www.deadiversion.usdoj.gov/schedules/orangebook/c\\_cs\\_alpha.pdf](http://www.deadiversion.usdoj.gov/schedules/orangebook/c_cs_alpha.pdf).
4. Denial of Petition to Initiate Proceedings to Reschedule Marijuana, 81 Fed. Reg. 53,687 (Aug. 12, 2016) (citing 21 U.S.C. § 812(b)).
5. *See* U.S. DRUG ENFORCEMENT AGENCY, [www.dea.gov](http://www.dea.gov) (last visited Sept. 3, 2017).
6. Letter from Michele M. Leonhart, Adm'r, U.S. Drug Enforcement Admin., to Coalition for Rescheduling Cannabis (June 21, 2011) (declining request to reschedule cannabis), [www.deadiversion.usdoj.gov/pubs/coalition\\_response.pdf#search=marijuana%20scheduling%20petition](http://www.deadiversion.usdoj.gov/pubs/coalition_response.pdf#search=marijuana%20scheduling%20petition).
7. JAMES O'REILLY, *FOOD AND DRUG ADMINISTRATION* chs. 12–15 (4th ed. 2017).

# The Current

## The Journal of PLI Press

---

Vol. 1, No. 2, Autumn 2017

## Building Client Relationships in the Digital Age

**Andrea L. Colby**

*Pro Se, LLC*

With the advent of ever-faster ways of communicating with each other, attorneys are facing new challenges in building and sustaining relationships with their clients. This article examines those challenges, reviewing the essential elements of building client relationships, looking at ways of adapting new communications styles to our client relationships, and determining which styles we need to retain and enhance in the digital age to keep our clients returning to us. The concepts discussed in this article are applicable to all client relationships, whether between outside counsel and firm clients, or in-house attorneys and their in-house clients. In addition, this article examines some key points for attorneys who are in the position of mentoring, coaching, or supervising newer attorneys in how best to communicate with their clients.

## What New Challenges Do We Face in Building Client Relationships in an Age of Digital Communications?

### Mediated Communications Versus Direct Communications

As digital technology grows increasingly responsive and sophisticated, we have more and more choices in how we communicate with our clients. A multitude of new communications platforms such as texting, instant messaging, and social media ensure instant, immediate, and informal contact, giving us unprecedented access to thousands of people in a split second, without having to dial a phone or visit them or actually even talk to them directly. It is important to distinguish these types of “mediated communications”—digital communications performed through devices—from “direct communications”—live communications between individuals, such as phone calls or face-to-face conversations.

One may ask why it is important to differentiate between these two types of communications—after all, whether attorneys and clients are communicating by email, text, phone call, or even letter, the information they want to get across is ultimately being communicated, regardless of the mode of communication used. But consider how the different types of communications prompt different reactions.

For example, think about the reaction you have when you receive an email, as opposed to receiving a text message on your phone: An email does not need to be answered immediately—you can take time to consider what you want to say, how you want to respond. On the other hand, when you receive a text or instant message, you are triggered to react spontaneously—and often *informally*. There is an urgency connected with instant messaging that is not necessarily sparked by an email, by a first-class letter, or even by a telephone call. As psychologist and MIT professor Sherry Turkle suggests, “Face-to-face conversation unfolds slowly. It teaches patience. When we communicate on our digital devices, we learn different habits . . . we start to expect faster answers.”<sup>1</sup> Therefore, our first response to a text message may not be the best or most well-thought-out.

As always, given our responsibilities as attorneys, we need to give sufficient thought to our responses. In this age of digital communications, however, we may not always do that, which can be particularly problematic. Today, not only do we communicate continuously, but much of what we communicate—especially via

---

text, email, or social media postings—may be preserved for posterity, whether we intend it to be or not. Thus, our first challenge is to determine how we can preserve our equanimity and judgment when we receive instantaneous, seemingly

## **Our first response to a text message may not be the best or most well-thought-out.**

urgent communications. Especially when dealing with clients, we need to convey a well-mediated, calm demeanor.

### **Generational Considerations**

A second challenge regarding client relationships in the digital age relates to the composition of the U.S. workforce today. We now have four generations in our workforce—the “Silent Generation” (born 1925–1945), “Baby Boomers” (born 1945–1964), “Generation X” (born 1965–1981), and “Millennials” (born 1982–2004). According to Pew Research Center analysis of U.S. Census Bureau data,<sup>2</sup> the distribution of these four generations in today’s workforce is as follows:

- Silent Generation: 2.4%
- Baby Boomers: 28.8%
- Generation X: 34.1%
- Millennials: 34.6%

Millennials represent 34.6% of today’s total workforce, which means that 65.4% are non-Millennials.

The implications of this data with respect to workplace communications are important: Those workers who belong to the Millennial generation—34.6% of our colleagues—have never known a world without cell phones and have never functioned in a work environment in which electronic mail did not exist. Importantly, however, the remaining 65.4% of our colleagues (and our clients) are indi-

viduals born prior to 1982. These are *non*-Millennials who have learned the skills to communicate directly, whether via phone or live and in person. These direct communications skills are still relevant and important, even in our digital age.

The three non-Millennial generations in our workforce are accustomed to face-to-face, live communications and have the skills to work in that type of environment. Thus, while the Silent, Boomer, and GenX cohorts are growing accustomed to utilizing the new technologies and ways of communicating, they are *adding* to their arsenal of skills in effective communication. They have had to learn new technologies of communicating repeatedly over the past thirty to forty years. Further, these generations have had to adapt rapidly to using these new forms of communicating.

**Today, 34.6% of our colleagues have never known a world without cellphones or email.**

In contrast, the lawyers who are members of the Millennial generation are well-skilled in the new technologies, but they generally have not had the opportunity or need to develop face-to-face or verbal, live communications skills. However, given that nearly two-thirds of the workforce belongs to a generation other than Millennial, it follows that an equal proportion of our current clients and potential clients also reside in those non-Millennial populations.

Therefore, the second challenge we face in our digital age is to ensure that we *all* acquire the skills to communicate with *all* generations in order to maintain and build our relationships with our clients.

### **Being Skilled in Both Modes of Communications**

A third challenge in our digital age relates specifically to the Millennial generation: Consider that for those in the non-Millennial generations, new modes of communications and new technologies have continued to develop over the years, and these generations have learned to use them *in addition* to their direct communications skills. So the basic modes of their learned communication styles have been live *and* direct. Increasingly, though, the Millennials have *only* been required to learn and feel more comfortable with mediated communications.

---

Millennials' discomfort with live communication is illustrated by a phenomenon that many parents today may recognize—that when the telephone rings at home, nobody gets up to answer it. A recent *Wall Street Journal* article reports that this is the case as well with doorbells.<sup>3</sup> One young person was quoted as saying, “Doorbells are just so sudden. It’s terrifying.” The Millennial mindset is that if friends are coming to the door, they will text to let you know they are there, so anyone who rings the doorbell is obviously somebody you don’t know. Similarly, tasks like making a dinner reservation or a doctor’s appointment—which typically used to require direct, live communication—can now be done online without ever having to speak directly with a person.

Why is this a challenge? Because the propensity to avoid direct communications can shut down that mode of communication. Some individuals who are more comfortable with mediated communications avoid live communications because they are concerned that opening up a direct line of communication means that there is a chance that person might disagree with them, might misunderstand them, or might raise an issue that they are not prepared to deal with. For some tasks, such as making dinner reservations, this sort of issue seldom arises, which is why mediated communication modes are acceptable in such situations. However,

## **Millennials have not developed face-to-face or verbal, live communications skills.**

as lawyers, we must often answer unexpected questions or defend our position, which, as uncomfortable as it might be, requires talking things out, live, in a direct way.

Shutting down direct communications modes of contact could raise significant additional issues with respect to the maintenance of client relationships. If a client who is accustomed to connecting with his or her attorney via telephone attempts to reach a lawyer who prefers mediated communications, the lawyer may refuse

to answer the phone, and the call might go unrecognized and unheeded. This alienates our clients and drives wedges between us. Thus, we all need to have all the necessary skills to support a broad client base.

The effects of these trends on client relationship-building are many. When we use digital communication, there is a multitude of opportunities for misunderstanding and miscommunication—such as the use of abbreviations, misspellings, grammatical errors, and spellcheck errors. There are also auto-corrections, which can be wrong and can sometimes result in statements that are embarrassing, even insulting. Likewise, digital messaging does not convey body language or verbal intonation and can be easily misinterpreted—one of the reasons why irony, humor, and sarcasm do not translate well in written messages and can often be misconstrued. In addition, clients who are not up to speed on the latest technological communication trends may feel overwhelmed and even ignored when the only communications they receive are instant messages. Similarly, some clients may really want a live conversation because they have something they want to say directly, perhaps something they do not feel comfortable putting in writing. Ultimately, the failure to take into account the potential for such miscommunications is a failure to develop important advocacy and persuasion skills in verbal and face-to-face communications—skills that are vital in maintaining client relationships.

Another important aspect of this issue is the succession-planning process. If we have maintained a good relationship over the years with our clients via phone and in-person meetings, we should want the successor attorneys taking over those clients to be able to maintain that type of contact and relationship. While it is acceptable to communicate via mediated communications modes when necessary and appropriate, if our clients are accustomed to direct conversations, we should honor that need. So learning and teaching direct communications skills to new generations of attorneys is important moving forward.

Another reason for up-and-coming lawyers to develop direct communication skills relates more to their own health than to specific client relationships. There is more and more research that shows that human beings need to have direct connection with others. Dr. Jean Twenge of San Diego State University reports that Millennials have a surprisingly high rate of depression and points to “loneliness” as one major factor in this trend. It arises from what she calls a “junk-food diet of

instant messages, Facebook posts, e-mail and phone calls, rather than the healthy food of live, in-person interaction.”<sup>4</sup> So working on direct-communication skills is not only good for your client relationships, it’s actually good for your health, too!

## **What Are the Essential Elements of Building Client Relationships?**

There are several basic elements of relationship-building that apply to our connections with our clients whether or not those connections are accomplished via direct or mediated communications. First, it is vital to make sure your clients feel as if they can trust your advice and your capabilities. You want to get their work done on time and completely. You need to work with your clients to understand their priorities, what matters most to them. While the matter you are working on with one client may be one of twenty matters for you, it may be the most important or the only project your client is working on. Clients need to trust that their attorneys are working to achieve the best legal results possible, using all their skills.

At times, attorneys need to give their clients difficult or challenging advice. Clients may need to be told “no,” they cannot proceed down a particular pathway. If this is the case, we need to consider and plan how best to communicate the advice to them. We must convey this information in such a way that the clients understand, digest, and follow our advice. Clients must understand that we have their best interests at heart. Here are three steps to follow when communicating with clients in this situation:

1. Think about where they are and meet them there—we cannot be overly technical in explaining the law applicable to their situation.
2. Give them alternatives that will help achieve their goals to the extent legally possible. Make sure they understand what you are telling them.
3. Help them find the steps they need to take in order to follow your advice.

Once you have inspired your client’s trust, there are other actions you can take to preserve and continue to build your relationship. Maintaining contact over time so your clients think of you when they need legal assistance is vital and can be accomplished in a number of ways—for example, by sending ongoing updates on law relevant to their business or situation. This can be achieved via constant

contact, directly or electronically, perhaps in the form of a general note to all appropriate clients or as an email specifically tailored to one individual client based upon his or her needs.

It is also helpful to check in with your clients on a periodic basis to express a personal interest in their needs. Give ongoing thought to your clients' business and consider how best to meet their needs. Reaching out to your clients via personal, direct contact to let them know you are thinking about them can be invaluable. In a corporate environment (where the client is not paying by the hour),

## **Consider inviting your client to lunch or to coffee. Seeing your face in person has a huge impact on people.**

setting up regular meetings with clients who need regular support is particularly useful. Such periodic check-ins can also be used to the extent necessary in a private practice context. In addition, in-person contact can help assure a client that you are personally interested in what they are doing, how their business is doing, and what they need. Consider inviting your client to lunch or to coffee—seeing your face in person has a huge impact on people. Getting to know clients personally creates a connection on which they will draw going forward.

### **How Should We Decide Which Mode of Communication to Use?**

How do you decide in a given situation if it is better to use direct communications or mediated communications to transmit information?

There are times when mediated communications are the most effective and efficient way to convey information; in other circumstances, direct, live communication modes are better to use. For example, mediated communications such as emails and texts are appropriate when conveying factual, unambiguous information: setting up a meeting, sending an agenda, sending over a proposal, making

---

arrangements for signature—all things that are not subject to a lot of discussion or questioning. On the other hand, live, direct communication is a better mode for conveying information or advice in situations where the information or advice may generate questions, concerns, confusion, or even resistance. This is also true if what you have to convey is “bad news” or something you may not want to put in writing.

Communicating proposals during negotiations or uncomplicated edits to an agreement may also be performed via mediated communications modes; but if these proposals are likely to generate questions, then a live, direct way of addressing them should be utilized. We can use mediated communications modes as an adjunct to live, direct modes with our clients to open up ways of transmitting information.

## **Emails and texts are appropriate when conveying factual, unambiguous information.**

Thus, when you need to convey information and are faced with the decision of which mode of communication to use, the essential questions to ask are “Will my client have a question about the information or advice I’m sending?” and “Will they have an emotional reaction to it?” If the answer is yes, it may be better to set up a live meeting to convey the information directly and to discuss any questions that may arise.

### **How Can We Adopt New Communications Styles to Strengthen Our Client Relationships?**

It is important to remember that our clients come from all generations and they have a varying capability to utilize new technologies. To be effective attorneys, we all need to develop the skills to use both direct communications *and* mediated communications in order to be able to match our communications style

---

to our clients in a personal way. Thus, in this digital age of increasingly speedy and concise communications, lawyers should have the necessary skills to use live, direct communications as well as to communicate through mediated modes that use new technologies. Attorneys who feel comfortable with live, direct communications should learn to take advantage of new technologies in order to be able to work well with their Millennial clients and colleagues. Those attorneys who are accustomed to mediated communications modes need to perfect their interpersonal skills in order to maintain relationships with their non-Millennial clients and colleagues. And managers and partners should pay close attention to how they are training and mentoring Millennial lawyers to help them learn the interpersonal skills that will help up-and-coming lawyers connect with and service clients into the future.

### Tips for Live, Direct Communications with Clients

The most important thing—no matter what mode of communication the attorney uses to communicate with his or her client—is to *prepare*.

- Be empathetic! What does your client need to know, and how does he or she need to hear it?
- Ensure that all positions you take are consistent with your team's position on each point.
- Consider your tone of voice and your appearance. Make eye contact and demonstrate relaxed and open body language.
- Practice! Hear yourself speak; watch yourself in the mirror.

Active listening skills are important in live communication. Contrast this with communicating via mediated modes, which does not require that you let the people you are communicating with know that you are “listening” to them—if you respond to them, they know you have received their comment; if you do not respond, they assume that you have not received it. However, when you are conversing with clients in a telephone call or face-to-face meeting, it is not always clear whether their message (or your message) has been received and understood clearly. If you convey some advice or information and your client asks a question or makes a statement, active listening skills dictate that you paraphrase what the client has said and ask if you have heard them correctly.

- Listen carefully to what your client is saying.
- Do not concentrate on what you want to say next while your client is talking.
- Give yourself time to respond—take a breath!
- Repeat back and paraphrase what you have heard your client say, and ask if you heard it correctly and completely: “What I hear you saying is \_\_\_\_\_. Is that correct?”

### Handling Other Opportunities for Live, Direct Communication

Giving presentations is another mode of live, direct communication that requires some skill. It is important to assess your audience and determine who is present so you can tailor your presentation to them. Be succinct in what you want to convey: Ask yourself what your audience wants and needs to know.

When using PowerPoint or other presentation software, make sure your slides are concise; put no more than four major points on each slide. Use slides as support and summary, not as a script (don’t read your slides aloud—everyone in your audience can read them). In addition, find a way speak conversationally, as if you are talking to each member of your audience personally.

Brainstorming sessions, where participants interact and build on each other’s concepts, is another area in which live, direct communications modes work better than mediated modes. Brainstorming depends upon immediate, interactive means for discussing expressed ideas, for addressing issues and responding to challenges as a group—things that are difficult to accomplish in a mediated communications mode such as text messaging or email.

Likewise, while simply touching base with your clients can be done via email or text, these mediated communications are not as effective as direct communications. Getting to know your client, letting your client get to know you, letting them know you care are all more effectively achieved in person. In this context, live communication gives clients personal, memorable contacts and fixes your face and name in their memories.

### Developing/Improving Direct Communications Skills

For those who are accustomed to mediated communications (and even for non-Millennial attorneys whose live communications skills may be rusty), there

are a number of ways to work on direct communication skills. First and most important is to *use* your interpersonal, direct communication skills. Attorneys seeking to improve and become more comfortable with such skills can set weekly goals for themselves:

- Call a friend on the phone (even if you make an appointment via text!).
- Order dinner by calling a restaurant.
- Seek opportunities to present (*e.g.*, to a professional organization or in your office).
- Ask a client or colleague to lunch.

If you are an attorney who is accustomed to direct communications, you should recognize that a growing number of your clients will be from a cohort that is familiar and comfortable with mediated communications modes. Therefore, you should take the following into account when considering directions for professional development:

- Individuals used to mediated communications are arriving in the workforce in greater and greater numbers—succession planning for future client support is important.
- There is a need to keep communications channels open with individuals accustomed to mediated communications, so ensure you are up to date on mediated communication technology.
- Mediated communications can be extremely efficient and quick, especially for simple, clear tasks.
- Set boundaries in your practice for when each type of communication is preferred.

### **Dealing with the Diversity of Communications Styles in the Workplace**

The following are a few tips for partners and managers dealing with the diversity in communication styles in the workplace. Due to the fact that we now have a growing number of attorneys who need to develop interpersonal skills, we need to be much more intentional about doing so.

Communication styles will play into succession planning to a great degree: With the diversity of generational cohorts in our client base, the lawyers who will

---

be inheriting our clients will need to be facile in communicating with all of them. So attorneys must be purposeful about training them to take care of our clients. Even in the context of a corporate environment, while our clients do not have a choice about using the law department for their legal needs, they do sometimes choose *not* to do so, with possibly dire consequences. If they do not get in touch with us, we do not know about their issues and cannot help mitigate them.

- Mentor and coach your teams regarding direct communications skills.
- Bring your team to live client presentations to observe and present.
- Invite your team to client lunches and informal meetings.
- Let your team members give advice to clients and provide feedback on their communications skills.
- Share your approach to client communications and interaction before bringing your team into contact with clients—let them observe your interactions, and explain what you did and why you did it.

## Conclusion

We have an increasingly vast menu of communications platforms and styles that can be helpful in building your client relationships and corresponding skills required to utilize those platforms as well as to know when it is appropriate to use each. If we are intentional in using these skills in an appropriate way, they can ease our client outreach and help us build and strengthen relationships with those clients.

---

This article is based on PLI's One-Hour Briefing [Building and Sustaining Client Relationships in the Digital Age](#) by Andrea L. Colby.

---

**NOTES**

1. See Paul Barnwell, *My Students Don't Know How to Have a Conversation*, ATLANTIC (Apr. 22, 2014), [www.theatlantic.com/education/archive/2014/04/my-students-dont-know-how-to-have-a-conversation/360993/](http://www.theatlantic.com/education/archive/2014/04/my-students-dont-know-how-to-have-a-conversation/360993/).
2. See Richard Fry, *Millennials Surpass Gen Xers As the Largest Generation in U.S. Labor Force*, PEW RESEARCH CTR. (May 11, 2015), [www.pewresearch.org/fact-tank/2015/05/11/millennials-surpass-gen-xers-as-the-largest-generation-in-u-s-labor-force/](http://www.pewresearch.org/fact-tank/2015/05/11/millennials-surpass-gen-xers-as-the-largest-generation-in-u-s-labor-force/).
3. Christopher Mims, *Ask Not For Whom the Doorbell Tolls. They Won't Answer It*, WALL ST. J. (Aug. 28, 2017), [www.wsj.com/articles/ask-not-for-whom-the-doorbell-tolls-they-wont-answer-it-1503864316](http://www.wsj.com/articles/ask-not-for-whom-the-doorbell-tolls-they-wont-answer-it-1503864316).
4. JEAN TWENGE, *GENERATION ME 150* (Atria Books 2006), [www.generationme.org](http://www.generationme.org).



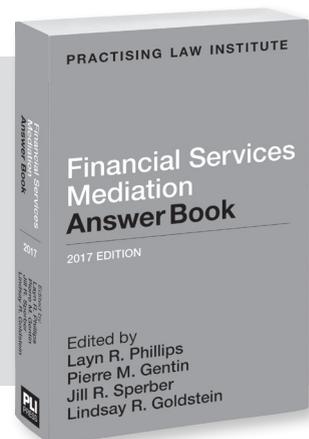
**PLI**  
PRESS

GET  
TO KNOW  
SOME  
OF THE  
**MOST**  
**TRUSTED**  
NAMES  
IN LAW

- ◆ **SACK ON DEFAMATION**  
LIBEL, SLANDER, AND  
RELATED PROBLEMS
- ◆ **FRIEDMAN ON LEASES**
- ◆ **FABER ON MECHANICS OF  
PATENT CLAIM DRAFTING**
- ◆ **PROSKAUER ON PRIVACY**  
A GUIDE TO PRIVACY AND  
DATA SECURITY LAW IN THE  
INFORMATION AGE
- ◆ **KANE ON TRADEMARK LAW**  
A PRACTITIONER'S GUIDE
- ◆ **PUBLIC COMPANY DESKBOOK**  
COMPLYING WITH FEDERAL  
GOVERNANCE & DISCLOSURE  
REQUIREMENTS
- ◆ **SECURITIES LAW AND  
PRACTICE DESKBOOK**
- ◆ **INVESTMENT ADVISER REGULATION**  
A STEP-BY-STEP GUIDE TO  
COMPLIANCE AND THE LAW
- ◆ **THE CORPORATE TAX  
PRACTICE SERIES**
- ◆ **CORPORATE LEGAL DEPARTMENTS**  
PRACTICING LAW IN A CORPORATION

**NEW**

**FINANCIAL SERVICES MEDIATION  
ANSWER BOOK**



800.260.4754 • [www.pli.edu/lawbooks](http://www.pli.edu/lawbooks)