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**SILICON VALLEY FIRST CUP OF COFFEE SEMINAR SERIES**

UPCOMING SEMINARS:

## **Artificial Intelligence (AI) Boot Camp**

- January 12 Computer-Implemented Inventions in Biotechnology and Healthcare, Patentability from European and US Perspective
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- January 19 Software As a Medical Device: US FDA Regulatory and Legal Framework
- January 20 Patent and Trade Secret Protection for Inventions That Use AI
- January 21 AI in Hiring and Recruiting
- January 28 AI and Copyright



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## SILICON VALLEY **FIRST CUP OF COFFEE** SEMINAR SERIES

UPCOMING SEMINARS:

### **Artificial Intelligence (AI) Boot Camp**

- February 2      The Ethics of Artificial Intelligence for the Legal Profession
- February 3      AI and Data Privacy
- February 4      Patents for Medtech AI: Opportunities and Pitfalls
- February 9      IP Landscape of AI Hardware Startups
- February 10     The Risks of Bias and Errors in AI-Enabled Decision-Making
- February 11     AI in Digital Advisory Offerings: Regulatory Considerations
- February 16     Bias Issues and AI

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# AI AND RECRUITING

Melinda S. Riechert  
and Andrew J. Gray IV

January 21, 2021

# Presenters



**Melinda S. Riechert**



**Andrew J. Gray IV**

**Morgan Lewis**



# The stages of HR operations and how AI can be used

- Recruiting – identifying the best possible candidate and persuading him or her to apply
- Selection – choosing which candidates should receive offers to ensure that only the best employees are selected
- On boarding – bringing the employee into the organization to make him or her useful faster
- Training – improving the performance of employees by determining which training makes sense for employees to take, based on experiences of similar employees
- Performance management – identifying good and bad performers
- Promotion – who is the best person for the new role, and can that person handle the requirements of the position? Which career moves make sense to an employee?
- Retention – how to determine who is likely to leave and how can we retain them
- Benefits – which benefits are best to attract and retain employees

# The problems

- As businesses quickly reopen following the pandemic, they will need to make rapid hiring decisions
- Too few applicants
- Takes too long to review resumes
- Not enough qualified applicants
  - What is a qualified applicant for this position at this employer (“good fit”)?
- Most predictors of employee performance are not effective
- Making the wrong decisions on hiring and promotions are expensive
- Companies are having a hard time finding qualified diverse candidates
- Find applicants who will stay a long time (and reduce the cost of hiring)
  - e.g., shorter commute time
- Is an algorithm the solution?

# Artificial Intelligence: What is it?

- AI predictions are comparing data related to a job applicant to a model of a successful employee

# Artificial Intelligence: What is it?

- A machine that learns from experience
- A machine that mimics human intelligence
- A technology that facilitates computers or robots to solve problems
- Machine learning: techniques to enable machines to improve at tasks with experience
  - The machine “learns” from the data it analyzes or tasks it performs and adapts its behavior based on what it learns from the data to improve its performance of certain tasks over time
- Data mining: Algorithms that use big data to analyze and reveal patterns and trends
  - Natural language processing (NLP)
  - Machine learning, deep learning



# Artificial Intelligence in Hiring: It is already here!

Computer programs that determine the ideal candidate, review job applications, and interview candidates

- 'Evaluating Candidates' with Word Matching (NLP)
  - Ranking candidates based on correlations between a job post/description and a resume
    - LinkedIn Recruiter, ZipRecruiter, Arya, AI4jobs, appyhere, Eightfold.ai, hiredscore, Untapt
    - Increasingly common within applicant tracking systems (taleo, workday, iCims, etc.)
  - Comparing applicant responses on application/interview (video) questions with predetermined "ideal" responses or theoretical models of the ideal
    - HireVue, Outmatch, AutoView, ModernHire, Talview

# Artificial Intelligence in Hiring: It is already here!

- Gamified and personality assessments
  - Compares answers of employer-selected “top employees” with candidates – Pymetrics, owiwi, PredictiveHire, Hirevue
  - Leverages candidate questionnaire and contextual, publicly available data, and employer HRIS data to compare applicants to successful recent hires – Arena.io
- Candidate “engagement” – chatbots to answer questions, automate email/text communications

# Artificial Intelligence in Hiring: It is already here!

- Will the desire to increase racial and gender diversity, particularly in the tech industry, lead to increased use of AI in finding and hiring candidates?
  - One of the biggest issues is finding diverse candidates.
    - Would it be appropriate for a computer to look at the photos of people on LinkedIn to determine if they are diverse?
- Will the shift from traditional talent-evaluation processes to algorithmic processes that claim to remove bias from the hiring process result in more diversity? (*claims from companies including Arena.io, Pymetrics, etc.*)
  - Adversarial networks can remove predictions that correlate to protected class data
  - Removing obvious data sources that correlate to protected class data has been proven to be insufficient

# What AI can do

- Determine the attributes of a successful employee
  - e.g., ask the employer's top performers to play brain games (e.g., Pymetrics) to determine the ideal candidate, then have the candidates play the same games to determine if they are suitable candidates
  - Is this approach effective, or is the mindset of long-term confident employees different than that of an applicant?
  - Does it reinforce existing biases?\*
  - Are these attributes distinct from poor performers, or do both have the same attributes?
  - Is this distorted by prior hiring decisions?

\* <https://hbr.org/2014/08/the-problem-with-using-personality-tests-for-hiring>

# What AI can do

- Creating job descriptions with the attributes of a successful candidate
  - Who is the judge of successful candidate?
  - Who identifies these “attributes”?
  - Is this effective?

# What AI can do

- Screen candidates to determine which ones to interview by analyzing resumes, social media presence, and other sources of data
  - this is NLP word matching, matching words in an application/resume to a job description
  - allows applicants to “game the system” or be negatively impacted for not manipulating their resumes/applications to cleverly match the job posting

# What AI can do

- Interview candidates and determine, based on facial and voice recognition (diction, tone, word choice, facial movements, gestures), as well as answers to questions, which candidates are the most likely to succeed
  - How do you determine the model for a successful candidate?
  - Who determines the model for a successful candidate?
  - Does it reinforce existing biases?

# The problem

- How do you define a desirable employee?
  - How does the programmer decide what characteristics make an employee “good”?
    - Subjective: Action-oriented, intelligent, productive, detail-oriented, grit, ability to multitask, fits into the company culture, values, conscientious, integrity, emotional intelligence
    - Objective: background, school attended, degree obtained, prior employer, length of employment, number of interviews, performance review scores, referral sources, background checks
      - But are these factors more a product of the parent’s socioeconomic status rather than the candidate’s ability to successfully perform the job?
    - Objective: outcome data – by identifying recent hires who produce measurable outcomes (job performance) and then using them as models to compare applicants to,
      - Removes employer bias, socioeconomic background, etc., from the process
  - Playing a team sport in high school



# The problem

- An employee who would be good for one job at one company under one manager with one team might not be good for another job at another company under a different manager working with a different team
- To work, the algorithm needs data!
- Too many job roles, too
- Database management: so many different databases storing information that don't communicate and share with each other
  - Applicant tracking, performance management, compensation
- Lack of historical data, or too little data to make machine learning valuable
- No data on candidates who were not hired

# The problem

- Will an algorithm based on data from other employers work in your workplace?
- Will the gender and ethnicity of the programmer influence the result?
  - Effect of lack of diversity in tech industry in Silicon Valley
- Are algorithms just “our opinions embedded in code”?
- What if the data sets are incomplete, incorrect, or nonrepresentative?
- Can applicants and employees learn to game the system?

# The problem

- Should the algorithm look at social media information in making its decisions in hiring, promotions, and whether employees are flight risks?
  - Do applicants and employees perceive this information as violating their privacy rights?
  - Will applicants and employees change their social media behavior?
  - Will using social media increase the risk of discrimination claims?

# Benefits

- Streamlines the recruiting process
  - Too many applications, resumes, and cover letters and not enough time to review
  - How to find passive candidates
- Increases efficiency:
  - Find and attract high-quality candidates
  - Find diverse candidates
  - Hire candidates faster and for less
  - Better candidate fit
- Increases fairness:
  - Fairer interviewing and screening
  - Does it remove bias from the hiring process when the recruiter does not know the gender, race, or age of the applicant?

# Risks – Fairness

- Hiring and firing have serious consequences and society demands fairness
  - Employers are expected to be able to explain and justify the practices they use
- Distrust of AI
  - Users can't see or understand how decisions are made
  - The public distrusts artificial intelligence in hiring\*
  - Most Americans would not want to apply for a job knowing that a computer program or algorithm would be evaluating candidates\*\*
  - The American public believes that algorithms would do a worse job than humans in several areas of the hiring process\*\*
- Importance of transparency, particularly in promotion and pay decisions
  - Will employees perform as well if promotion and pay decisions are made by a computer rather than their supervisor?

\* Only three percent of Americans are "very" enthusiastic about the implementation of artificial intelligence technology in hiring. Aaron Smith & Monica Anderson, 'Automation in Everyday Life', PEW RES. CTR. (Oct. 4, 2017), <http://www.pewinternet.org/2017/10/04/americans-attitudes-toward-hiring-algorithms/> [<https://perma.cc/RQC2-96KN>]. Meanwhile, twenty-one percent of Americans are very "worried" about artificial intelligence technology's use in hiring.

\*\*Seventy-six percent of Americans stated that they "would not want to apply for a job knowing that a computer program would be" utilized to make a hiring decision. *Id.* Of this group, forty-one percent stated that this was because "[c]omputers can't capture everything about an applicant," twenty percent stated that the process was "[t]oo impersonal," four percent stated that "[a]pplicants can game [the] system," and two percent stated that the process was more biased than current hiring practices. *Id.*

# AI and discrimination

- Does the use of AI reduce the role of the individual hiring managers' biases, or does it reproduce and deepen systemic patterns of discrimination reflected in today's workforce data?

# Risk of discrimination lawsuits from use of AI in hiring

- Algorithmic bias, leading to discrimination claims
- Algorithms are backward-looking and may reflect and repeat past biases
  - If men or whites had higher performance review scores in the past, when there were fewer women and minorities in the workplace, does that mean the company should hire men over women, and whites over minorities?
  - Do performance-review scores reflect the biases of the scorer?

# Risk of discrimination lawsuits from use of AI in hiring

- Disparate treatment: intentional discrimination based on a protected characteristic
- Disparate impact: using a facially neutral practice that has a disparate impact on a protected characteristic
  - Discriminatory in operation
  - Compare the selection rates for minority and nonminority candidates to see if they are “statistically significant,” and not likely the product of chance
  - Does, for example, the algorithm give a lower score to women, or a lower score to attributes disproportionately associated with women?



# Risk of discrimination lawsuits from use of AI in hiring

- Can the employer show that the practice is job related and consistent with business necessity?
  - Is the sought-after trait job related?
  - Does the algorithm accurately predict future job performance?
  - Or is it a proxy for discrimination?
- Can the employer prove that its algorithm meets these requirements?
  - Will the developer of the algorithm be willing to share this information with a jury?
- Is there a less-discriminatory alternative?
  - Are there other tests or selection devices that would also serve the employer's legitimate interests?

# Risk of class actions

- Failure-to-hire claims are usually individualized and thus not suitable for a class action.
- But will the use of AI create a common issue that makes the case a good candidate for a class action?
- Vendors and companies that use AI need to be prepared to defend their use of algorithms in hiring to ensure that there is no implicit or unintended bias.
- Companies that hire AI vendors should carefully negotiate their contracts with the vendors to obtain representations as to the product's fairness and indemnification and cooperation provisions in the event of a lawsuit or government investigation.

# Risk of claim of disability discrimination

- US and California law protects job applicants from disability discrimination and requires that they be accommodated.
- Applicants may have disabilities that are negatively impacted by AI tools, particularly speech patterns and facial expressions.
- An algorithm that correlates gym membership with successful candidates may screen out disabled candidates.

# Results need to be checked

- Employers should audit the results of the algorithms to confirm that there is no discrimination.
  - For example, are men receiving higher scores than women on a given trait? If so, can the model be adjusted?
  - Make sure that communications regarding the purchasing, use, concerns, and testing of the product involve lawyers who can provide legal advice that would be protected by the attorney-client privilege.
  - Will audits be protected by the attorney-client privilege?
- Algorithms will always be changing as machine learning uses new data to keep predictions current.
- As algorithms are changed, is that an admission of discrimination during the time that the algorithms were being used?

# ***Ricci v. Destafano* 55 U.S. 557 (2009)**

- City threw out firefighter lieutenant and captain promotion test results because it thought they were biased
- City was sued by the people who had done well on the test
  - Supreme Court held that the city was wrong to throw out the test results unless it could demonstrate strong evidence of bias, such that it would have been liable had it not thrown out the results

# Will the US government get involved?

- Under the Biden administration, the Equal Employment Opportunity Commission (EEOC) will likely step up its enforcement efforts in the area of AI and machine-learning driven hiring tools.
- On Dec. 8, 2020, 10 US senators sent a joint letter to the EEOC, urging the EEOC to use its powers under Title VII of the Civil Rights Act of 1964 to “investigate and/or enforce against discrimination related to the use of” AI hiring technologies.
- The senators’ letter demanded that the EEOC answer the question of whether under Section 705(g)(5) of Title VII, the commission possesses the authority to conduct a technical study and investigation into “the development, design, use and impacts” of AI hiring technologies “*absent an individual charge of discrimination,*” and to explain “why or why not.”

# Will the US government get involved?

Three questions posed:

1. Can the EEOC request access to “hiring assessment tools, algorithms, and applicant data from employers or hiring assessment vendors and conduct tests to determine whether the assessment tools may produce disparate impacts?”
2. If the EEOC were to conduct such a study, could it publish its findings in a public report?
3. What additional authority and resources would the EEOC need to proactively study and investigate these AI hiring assessment technologies?

# Will the US government get involved?

- Will the EEOC compel production not just of the proprietary algorithms, but also the data sets used to train them and the applicant data from individual employers reflecting the impact of the algorithmic output?
  - Will the AI companies object and assert protection of trade secrets?
  - Are AI companies doing enough to protect their trade secrets?
- Will the EEOC conduct tests to determine whether the algorithms produce disparate impacts on the hiring of protected individuals?
- Will the EEOC publicly publish its findings?



# Regulation of AI in hiring

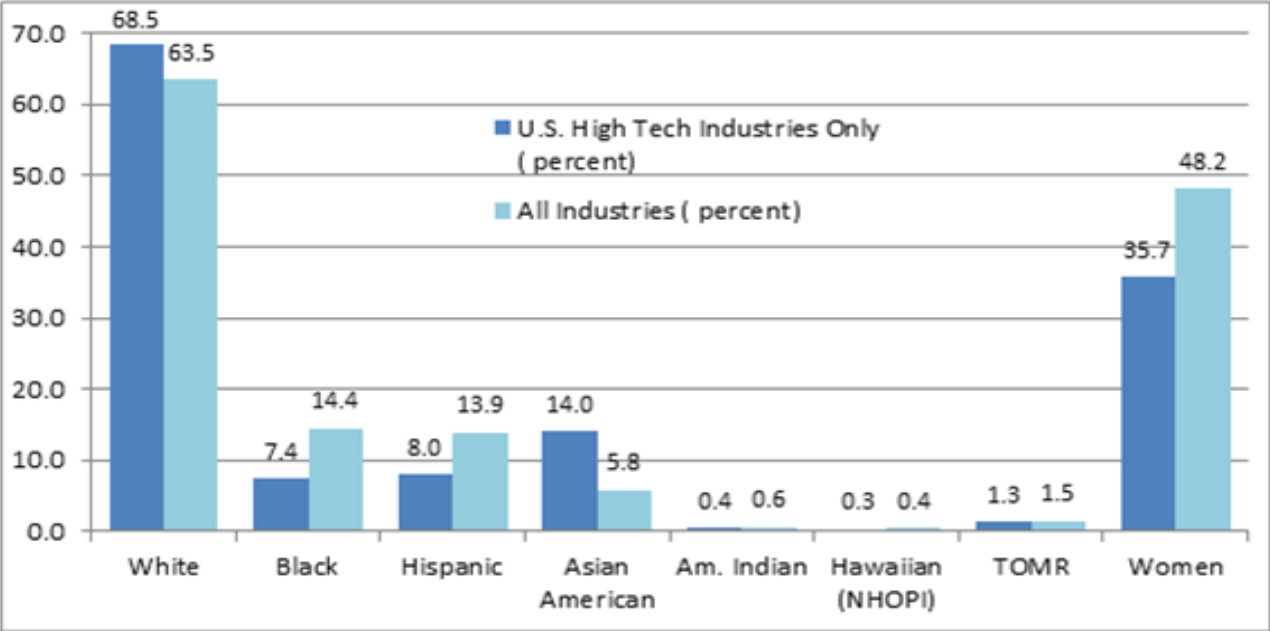
- Should the use of AI in recruiting and hiring be regulated?
  - The 1978 Uniform Guidelines on Employee Selection Procedures regulates preemployment testing and testing for employment decisions (hiring, promotions, demotions, retention).
  - The Algorithmic Accountability Act was introduced into Congress in 2019.
    - It would give the FTC authority to create regulations to check “automated decision systems” for bias.
  - The EEOC is investigating claims that algorithms used to make hiring, promotion, and other job decisions unlawfully discriminate against certain groups of workers.

# Regulation of AI in hiring

- Illinois passed the Artificial Intelligence Video Interview Act, effective January 1, 2020, that imposes transparency, consent, and data-destruction duties on employers using AI video interviews to screen applicants for Illinois-based positions.
- California introduced a bill in 2019 to urge policymakers to explore the use of new technologies, including artificial intelligence and algorithm-based technologies, to reduce bias and discrimination in hiring and employment in the state.

# The EEOC Diversity Report – Promoting Diverse Workplaces in the Tech Sector

INDUSTRY PARTICIPATION BY GENDER SEX AND RACE GROUPS  
HIGH TECH VS. ALL PRIVATE INDUSTRIES



# The EEOC Diversity Report – Promoting Diverse Workplaces in the Tech Sector

TABLE 4: SELECT JOB CATEGORIES BY SEX IN HIGH TECH v. ALL PRIVATE INDUSTRY

	High Tech		All Private Industry	
	Women (percent)	Men (percent)	Women (percent)	Men (percent)
Executives, Senior Officials and Managers	20.44	79.56	28.81	71.19
First/Mid Officials & Managers	30.1	69.9	38.96	61.04
Professionals	31.89	68.11	53.42	46.58
Technicians	23.74	76.26	50.12	49.88
Total Employment	1,846,801	3,494,798	24,422,889	26,728,926

	High Tech Industries Only (percent)	All Private Industries (percent)
White	68.53	63.47
Black	7.4	14.38
Hispanic	7.97	13.86
Asian American	14.04	5.77
Am. Indian	0.42	0.56
Hawaiian (NHOPI)	0.34	0.43
Two or more races	1.3	1.53
Women	35.68	48.16
Total Employment (N)	5,341,599	57,399,178

# Will AI enable companies to retain talent?

- High percentage of highly qualified women scientists and engineers leave their jobs
- Can this problem be solved with an algorithm and data?

# Conclusion

- Is the future of recruiting AI?
- Do algorithms work?
- Are they fair when they make decisions based on probability and the behaviors of others to predict the probability of future behavior?
- Even with these problems, do the benefits from the use of AI outweigh the problems?
- Is using AI better than relying on humans?
- Is it legally riskier to rely on AI than on humans, and do the benefits outweigh the risks?
- Should AI be used in hiring but not in promotions?
- Should algorithms be used to determine whom to fire?
  - e.g., firing employees who have the attributes of others who have embezzled in the past

# Conclusion

- Is the use of AI in recruiting and hiring regulated?
  - The 1978 Uniform Guidelines on Employee Selection Procedures regulates preemployment testing and testing for employment decisions (hiring, promotions, demotions, retention)
  - Requires large employers to validate testing to make sure it does not have an adverse impact on protected characteristics
  - Can be done by identifying the criteria that indicates successful job performance in the job (e.g., knowledge, skill, ability) and then statistically correlating test scores with the criteria so identified
  - The validity testing may have to be updated as the machine learns and updates the algorithm

# Best practices

- AI is here to stay
- But we need to understand its weaknesses and protect against its potential biases
- Make sure the systems can be audited and corrections made
- Consider adopting AI compliance policies with a view to bias prevention, the proper use of AI, and a plan to mitigate biases if they are uncovered
- Consider arbitration agreements with class action waivers



# Coronavirus COVID-19 Resources

We have formed a multidisciplinary **Coronavirus/COVID-19 Task Force** to help guide clients through the broad scope of legal issues brought on by this public health challenge.

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To help keep you on top of developments as they unfold, we also have launched a resource page on our website at [www.morganlewis.com/topics/coronavirus-covid-19](http://www.morganlewis.com/topics/coronavirus-covid-19)

If you would like to receive a daily digest of all new updates to the page, please visit the resource page to [subscribe](#) using the purple “Stay Up to Date” button.



# Biography



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Melinda Riechert has experience litigating and arbitrating both class actions and single-plaintiff cases. Melinda defends clients in wage and hour, whistleblower, wrongful termination, discrimination, harassment, retaliation, breach of contract, trade secret, and all other types of employment disputes. Melinda has won verdicts for her clients in six jury trials and four bench trials, and she has won numerous summary judgments and arbitration awards.

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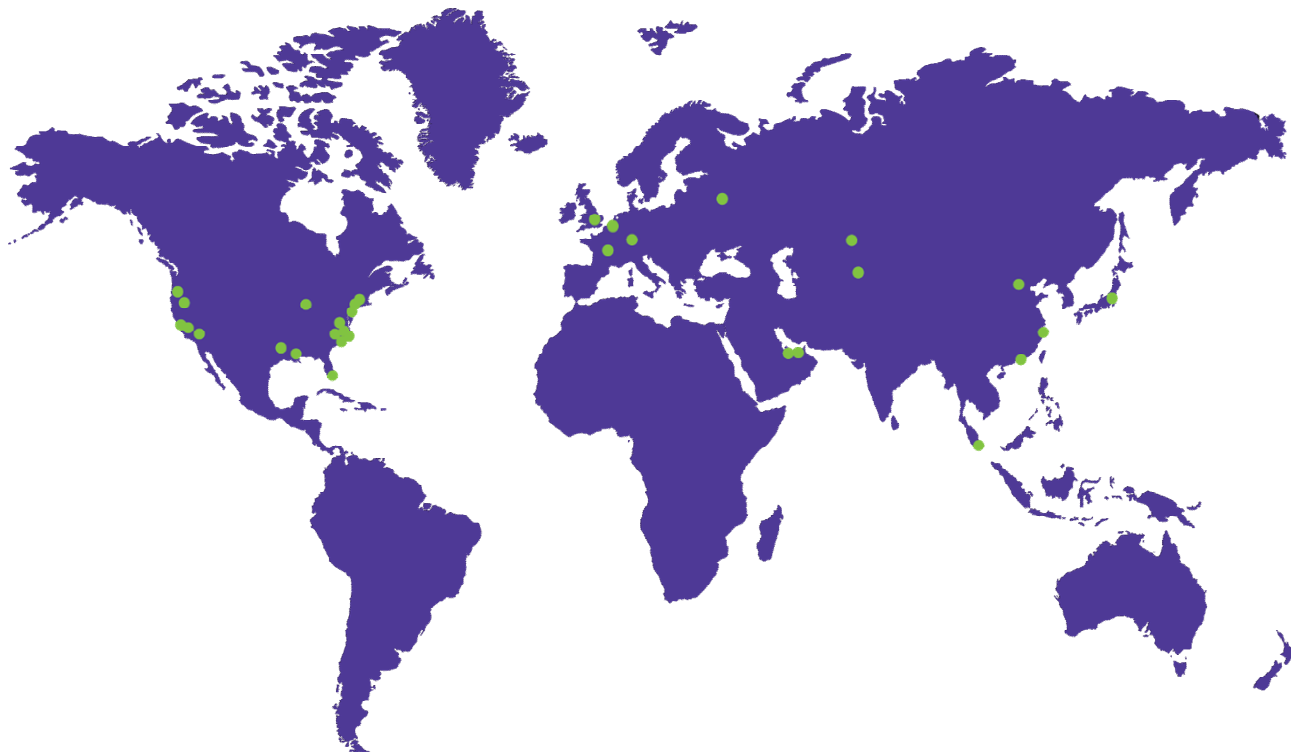
Serving as the leader of Morgan Lewis's semiconductor practice and as a member of the firm's fintech and technology practices, Andrew J. Gray IV concentrates his practice on intellectual property (IP) litigation and prosecution and on strategic IP counseling. Andrew advises both established companies and startups on Blockchain, cryptocurrency, computer, and Internet law issues, financing and transactional matters that involve technology firms, and the sale and licensing of technology. He represents clients in patent, trademark, copyright, and trade secret cases before state and federal trial and appellate courts throughout the United States, before the US Patent and Trademark Office's Patent Trial and Appeal Board, and before the US International Trade Commission.

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