Implicit Bias in Intellectual Property Law

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Agenda – 4 Modules

1. Overview of Implicit Bias (Explicit, Confirmation Bias too)
2. Implicit Bias in AI – Is Copyright law *increasing* implicit bias?
3. Patent Prosecution – Implicit bias against female Patent applicants?
4. Trademark's "economic consumer" focus instead of a humanized "person" focus – Does it create implicit bias problems?

Implicit Bias Regulatory Overview

- In 2020, the California Legislature enacted Cal. Bus. & Prof. Code section 6070.5, which directed the California State Bar to update the Minimum Continuing Legal Education (MCLE) requirements for lawyers to include "training on implicit bias and the promotion of bias-reducing strategies to address how unintended biases regarding race, ethnicity, gender identity, sexual orientation, socioeconomic status, or other characteristics undermine confidence in the legal system."
- In 2021, the Cal State Bar increased its MCLE hours requirement for implicit bias from one hour to two hours.
- Many other states are the same.

What this is not, What this is.

- Not negative, nor accusatory.
- A positive exploration of the issues that sit beneath implicit bias—our unconscious associations between events/data that lead to schemas/categorizations—and the required CLE standards, without charges or negativity.
- A look at systemic implicit bias in IP law through the prism of patent, trademark and copyright issues that trigger implicit bias questions systemic to the law.
- Goal: Be better advocates! Actionable steps to recognize implicit bias and make better decisions as lawyers for our clients – one form of implicit bias is confirmation bias which we all know to be careful of.

Definitions

- Implicit bias: Thought processes that occur without us knowing it that create associations that can lead to biases. Attitudes or stereotypes that impact our interpretation of events and people, decision-making, and behavior, without our express awareness of it. Some associations lead to negative, unfounded biases; some are just biases in our schemes of thinking that don't carry charged weight. But they are there and all matter for us to know to be better advocates.
- Explicit bias: Overt racism, sexism and other biases have played a major role in the legal space for decades in terms of anti-discrimination laws and equal protection challenges. This we are familiar with most as lawyers.

Confirmation Bias – One Form of Implicit Bias

- Confirmation bias is where decision makers actively seek out and assign more weight to evidence that confirms their hypothesis and ignore or underweight evidence that could disconfirm their hypothesis. This creates a tendency to seek out information or to view things in a way that confirms what you already believe. Confirmation bias contributes to overconfidence in personal beliefs, even when faced with contrary evidence.
- As lawyers we are hyper aware of it because it can be our Achille's Heel: it can affect our perspectives on things such as which route might be the best for a client, the strength of arguments they're making, discounting strength of the other side which leads to negative client results.
- And we offensively look to see if it exists in the other side's experts.

Implicit Bias impact on people accessing the legal system (6070.5(a)(2) – Judicial Writing

“The prosecutrix was a twenty-one year old mother of a two-year old son. She was separated from her husband but not yet divorced. Leaving her son with her mother, she attended a high school reunion after which she and a female friend, Terry, went bar hopping in the Fells Point area of Baltimore. They drove in separate cars. At the third bar the prosecutrix met appellant. Appellant requested a ride home and she agreed."

The victim -- I'll call her Pat -- attended a high school reunion. She had arranged to meet her girlfriend Terry there. The reunion was over at 9:00, and Terry asked Pat to accompany her to Fell's Point. Pat had gone to Fell's Point with Terry on a few prior occasions, explaining in court: "I've never met anybody [there] I've gone out with. I met people in general, talking in conversation, most of the time people that Terry knew, not that I have gone down there, and met people as dates." She agreed to go, but first called her mother, who was babysitting with Pat's two-year old son, to tell her that she was going with Terry to Fell's Point, and that she would not be home late. As Pat was preparing to go, appellant asked if she would drop him off on her way home. She agreed because she thought he was a friend of Terry's. She told him, however, as there walked to her car, "I'm just giving a ride home, you know, as a friend, not anything to be, you now, thought of other than a ride." He agreed to that condition.

Explicit: From *Batson v. Kentucky*, 476 U.S. 479 (1986) to *Pena-Rodriguez v. Colorado*, 137 S. Ct. 855 (2017)

- *Batson*: The Supreme Court addressed the question of whether the prosecutor's use of peremptory challenges to exclude four black jurors violated the right to a fair jury trial and his Fourteenth Amendment rights to equal protection of the laws.
  - *Held*: racial discrimination in the selection of jurors not only deprives the accused of important rights during a trial, but also is devastating to the community at large because it "undermines public confidence in the fairness of our system of justice."
- *Pena-Rodriguez*: “For the inquiry to proceed, there must be a showing that one or more jurors made statements exhibiting overt racial bias that cast serious doubt on the fairness and impartiality of the jury’s deliberations and resulting verdict.”
- All require explicit bias.
- Not yet extended to implicit bias.

Copyright and AI – Implicit Bias?

- What is AI, how is it working, how is it impacting lawyering already?
- Review existing cases already underway that may impact.
- Current federal regulations from Copyright Office on AI.
- Given nature of AI learning, what implicit bias issues does it raise?
- But first some copyright fundamentals.

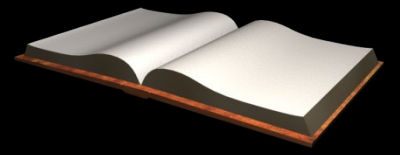
Copyright – Federal law

(1) Original works of **expression**

(2) Fixed in a tangible medium

What things fall within the copyright realm?

- Books and other writings
- Music
- Film
- Photographs
- Artwork
- Software source codes
- Architecture
- Clothing designs
- Pantomimes/choreographs



What Is AI exactly and how does it work

- Advanced computer learning with algorithms and human-based reinforcement learning/feedback that augments subsequent machine learning. Result is a computer system able to complete tasks that would otherwise require cognition.
- Technique known as diffusion whereby software can generate an output based upon inputs, can be for creating digital images or written content. A given image for example is progressively altered (noise) in a series of steps, which are then done in reverse too. AI learns form this to then make connections between data set or inputs and generate an output.
- ChatGPT created by OpenAI, publicly exploded late 2022.
- GPT = Generative Pretrained Transformer uses a language model that uses machine learning techniques to create human-like text in various forms. It is built and trained on a massive dataset of content, and uses that to predict words in sequences, develop learning from complex data patterns, and natural language learning. It was trained on 500 billion "tokens," which allow its language models to more easily assign meaning and predict plausible follow-on text. Many words map to single tokens, though longer or more complex words can get multiple tokens. On average, tokens are roughly four characters long.
- The ChatGPT neural network has 175 billion parameters or variables that allow it to take your input and then, based on the values and weightings it gives to the different parameters (and a small amount of randomness), outputs whatever it thinks best matches your request.
    - Randomness? Yes, the exact same question posed by 2 people can and will get slight variations in answers because it runs the prompt through the system each time anew.
    - Direct copying? Yes too, if you prompt it to identify who you are it may just draw content from your online bio.

Existing AI copyright suits

- *Getty v. Stability AI*, February 2023 lawsuit (Delaware): Getty alleges Stability AI used 12 million of its images to train its AI image generation system.
- *Andersen et al. v. Stability et al.* January 2023 (N.D. California): Artists sued in a class action AI entities for acquiring billions of images for training of its AI systems to then create works.
- *NYT v. OpenAI*, (SDNY 2023). Journalism works at issue.
- Basic argument: (1) the AI created images are derivative works from the training materials and the exclusive right to create derivative works belongs to the original author under US copyright law, 17 USC 106. Hugely complex derivative work question because the test requires a court to assess how much was taken and whether it is a derivative work or simply a fair new creation. (2) the training on the underlying works may have required reproducing those works and that may have been done without permission and is an infringement. This raises complex fact questions as well as huge fair use questions.

See the Complaint here: https://fingfx.thomsonreuters.com/gfx/legaldocs/myvmogjdxvr/IP%20AI%20COPYRIGHT%20complaint.pdf

AI and Implicit Bias

- "AI needs good data. If the data is incomplete or biased, AI can exacerbate problems of bias." (Exec. Office of the President, Preparing for the Future of Artificial Intelligence (2016), https://obamawhitehouse.archives.gov/sites/default/files/whitehouse_files/microsites/ostp/NSTC/preparing_for_the_future_of_ai.pdf [https://perma.cc/YN5X-KKAX].)
- White guy problem? (Kate Crawford, Artificial Intelligence's White Guy Problem, N.Y. Times (June 25, 2016), https://www.nytimes.com/2016/06/26/opinion/sunday/artificial-intelligences-white-guy-problem.html [https://perma.cc/AN63-XYS6].)
- What data set is being used?

Low-cost data sources: Public Domain works and Implicit Bias

- Public domain works can be used by AI to learn without copyright infringement risks.
- Public domain works were all originally created nearly a century ago by and large given length of copyright.
- But what implicit bias we introduce to the AI learning?
- Works a century ago were overwhelmingly written by white male authors. Female, minority, LGBQT authors were not published back then, so the data set itself perpetuates implicit bias in AI models and creative outputs.

Low-cost data sources: Creative Commons Open License Works & Implicit Bias

- The Creative Commons started in 2001. It was a nonprofit dedicated to helping creators share knowledge and make their works more accessible. (History, Creative Commons, https://creativecommons.org/about/history.)
- Within a year over 1,000,000 websites had such content, including government sites and the UN.
- Wikimedia is the preeminent example. Over 30 million people contribute to it.
- But as of 2011, 8.5% of Wikimedia editors were women. (Wikimedia Found., Wikipedia Editors Study: Results from the Editor Survey 3 (2011), https://upload.wikimedia.org/wikipedia/commons/7/76/Editor_Survey_Report_-_April_2011.pdf [https://perma.cc/6WAG-QXG9].).
- As of 2018, 90% of contributors reported as male.

Fair Use Laws – Will the Court rulings open up all works to AI learning? Will Fair Use rulings augment implicit bias?

- If all works are used to avoid potential implicit bias from CC and PD works, then less implicit bias may creep in.
- Fair Use - Judge made doctrine for 2 centuries, codified by Congress in 1976 Act

"In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include—

(1)the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;

(2)the nature of the copyrighted work;

(3)the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and

(4)the effect of the use upon the potential market for or value of the copyrighted work." 17 U.S.C. § 107

→Defense argument is that the AI machines transform the originals by creating not copies or similar new works, but instead give the AI machines the ability to create new works entirely.

Issue we are left with is whether copyright law itself, specifically how fair use works, as applied to modern technologies has implicit bias built in.

Patent Law & Implicit Bias

- In 2016, 21% of patents had a female inventor and 12% of all patent inventors were women.
  - USPTO, “Progress & Potential: A Profile on Women Inventors on US Patents” (2019)
- Female inventor patent allowance rates are 5% less than male inventor allowance rates and female inventors receive more office actions than male inventors.
  - Office of the Chief Economist, USPTO, Progress and Potential: A profile of women INVENTORS U.S. 3 (No. 2, 2019), https://www.uspto.gov/sites/default/files/documents/Progress-and-Potential.pdf
  - Jessica Milli et al.. “Equity in Innovation: Women Inventors and Patents” at 8 (Institute for Women’s Policy Research 2016).
  - 67% vs. 73% female to male allowance rates. (Milli at 12).
- Male patent examiners outnumber female examiners 3 to 1 (73% to 27%).
  - Linda Hosler, “Mind the Gap: Efforts to Narrow the Gender Gap in Patenting and Innovation” 19 Tech. & Innovation 759, 760 (2018).
- In a 500K implicit bias survey pool, 70% associate men with science and women with arts. Similar results repeated in Natl Academy Sciences experiment.
  - Catherine Hill, et al., “Why So Few? Women in Science, Technology, Engineering, and Mathematics” at 76.

Where Subjectivity in Patentability Process Arguably Impounds Implicit Bias

- Patent examiners have wide discretion.
- Example: Abstract Idea Patentability Law.
- “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101.
- SCOTUS in 2014 assessed whether a patent claim includes an abstract idea that is ineligible.

Alice Corp Ltd. v. CLS Bank, 573 U.S. 208 (2014)

- Step 1: “determine whether the claims at issue are directed to a patent-ineligible concept” relating to the judicial exceptions of a law of nature, natural phenomenon, or an abstract idea.
- If Step 1 is met, then Step 2: a court must “consider the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application”. Here, the analysis involves a search for an “inventive concept” that is “sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.”
- What is an inventive concept versus an abstract idea?

Broad discretion creates uncertainty

- *Ultramerical v. Hulu,* 772 F.3d 709 (Fed. Cir. 2014), involved patent claims for distributing media over the internet and held to be abstract idea not patentable because offering media in return for ads is an abstract idea, regardless of the myriad technical steps done in executing the patent claim.
- In contrast, *DDR Holdings v. Hotels.com,* 773 F.3d 1245 (Fed. Cir. 2014), involved a patent on a method to retain website visitors on your company website when they click a hyperlink and was held not an abstract idea. This time the way the invention "overrides the routine and conventional sequence of events ordinarily triggered by the click of a hyperlink," it did not employ mere ordinary use of a computer or the Internet.
- Eye of the beholder?

USPTO Data

- 31% increase in Patent Examiner rejections for patent-ineligible subject matter in first 18 months after *Alice*.
- USPTO, "Adjusting to Alice" https://www.uspto.gov/sites/default/files/documents/OCE-DH_AdjustingtoAlice.pdf
- "The increase in uncertainty seems to reflect the interpretive latitude in the language of the *Alice* standard." (*Id*. at 12)
- Pending 2023 Patent Eligibility Restoration Act aimed at removing the judicial exceptions and sought to amend § 101 to give more clarity.
- Implicit bias issue?

Trademark Law

- Lanham Act, 15 U.S.C. § 1125 *et seq*: “(1) Any person who, on or in connection with any goods or services, or any container for goods, uses in commerce any word, term, name, symbol, or device, or any combination thereof, or any false designation of origin, false or misleading description of fact, or false or misleading representation of fact, which— (A) is likely to cause confusion, or to cause mistake, or to deceive as to the affiliation, connection, or association of such person with another person, or as to the origin, sponsorship, or approval of his or her goods, services, or commercial activities by another person, or (B) in commercial advertising or promotion, misrepresents the nature, characteristics, qualities, or geographic origin of his or her or another person's goods, services, or commercial activities, shall be liable in a civil action by any person who believes that he or she is or is likely to be damaged by such act.”
- *Iancu v. Brunetti,* 139 S. Ct. 2294, 2306 (2019): Held that trademark law has "a specialized mission: to help consumers identify goods and services they wish to purchase, as well as those they want to avoid."
- “Many consumers are ignorant or inattentive, so some are bound to misunderstand no matter how careful a producer is.” *August Storck K.G. v. Nabisco, Inc.*, 59 F.3d 616, 618 (7th Cir. 1995); *Fotomat Corp. v. Cochran*, 437 F. Supp. 1231, 1244 (D. Kan. 1977) (“The law protects the gullible and ignorant consumer as much as the careful and intelligent consumer.”).

Trademark Law Test Across Circuits: Multi factorial test

- The plaintiff asserts that [insert trademark] is a trademark for its goods. The plaintiff contends that the defendant's use of[insert the defendant's mark] in connection with the defendant's [insert the defendant's product] infringes the plaintiff's trademark because it is likely to cause confusion.
- **You must consider whether a reasonably prudent consumer in the marketplace** is likely to be confused as to the origin of the goods bearing one of the marks.
- I will suggest some factors you should consider. You should not focus on any one factor to resolve whether there was a likelihood of confusion, because you must consider all relevant evidence. As you consider the likelihood of confusion you should examine the following:
- (1) Strength or Weakness of the Plaintiff's Mark. The more distinctive the plaintiff's mark is and the more the consuming public recognizes the plaintiff's trademark, the more likely it is that consumers would be confused about the source of the defendant's goods if the defendant uses a similar mark.
- (2) The Defendant's Use of the Mark. If the defendant and the plaintiff use their trademarks on the same, related, or complementary kinds of goods, there may be a greater likelihood of confusion about the source of the goods than otherwise.
- (3) Similarity of the Plaintiff's and the Defendant's Marks. If the overall impression created by the plaintiff's trademark in the marketplace is similar to that created by the defendant's trademark in [appearance] [sound] [or] [meaning], there is a greater chance [that consumers are likely to be confused by the defendant's use of a mark] [of likelihood of confusion]. [Similarities in appearance, sound or meaning weigh more heavily than differences in finding the marks are similar.]
- (4) Actual Confusion. If the defendant's use of the plaintiff's trademark has led to instances of actual confusion, this strongly suggests a likelihood of confusion. However, actual confusion is not required for a finding of likelihood of confusion. Even if actual confusion did not occur, the defendant's use of the trademark may still be likely to cause confusion. As you consider whether the trademark used by the defendant creates for consumers a likelihood of confusion with the plaintiff's trademark, you should weigh any instances of actual confusion against the opportunities for such confusion. If the instances of actual confusion have been relatively frequent, you may find that there has been substantial actual confusion. If, by contrast, there is a very large volume of sales, but only a few isolated instances of actual confusion, you may find that there has not been substantial actual confusion.
- (5) The Defendant's Intent. Knowing use by the defendant of the plaintiff's trademark to identify similar goods may strongly show an intent to derive
- benefit from the reputation of the plaintiff's mark, suggesting an intent to cause a likelihood of confusion. On the other hand, even in the absence of proof that the defendant acted knowingly, the use of the plaintiff's trademark to identify similar goods may indicate a likelihood of confusion.
- (6) Marketing/Advertising Channels. If the plaintiff's and the defendant's goods are likely to be sold in the same or similar stores or outlets, or advertised in similar media, this may increase the likelihood of confusion.
- (7) Consumer's Degree of Care. The more sophisticated the potential buyers of the goods or the more costly the goods, the more careful and discriminating the reasonably prudent purchaser exercising ordinary caution may be. They may be less likely to be confused by similarities in the plaintiff's and the defendant's trademarks.
- (8) Product Line Expansion. When the parties' products differ, you may consider how likely the plaintiff is to begin selling the products for which the defendant is using the plaintiff's trademark. If there is a strong possibility of expanding into the other party's market, there is a greater likelihood of confusion.

Ninth Circuit Jury Instruction 15.18 (2024)

Trademark Law & Implicit Bias

- Is the monolithic often derogatorily spoken-of consumer impounding bias by negative stereotypes?
- “Perhaps the most salient objection to the term consumer is the dehumanization, reduction, and objectification of the the buying public, which the term connotes. The consumer label evokes humans as objects instead of personifying them as real living, breathing people. The role of the consumer is merely economic, passive, and recessive.” Is the Word Consumer Biasing Trademark Law? 8 Texas A&M L. Rev. 367, 377 (2021).

Social Psychology Study: *Cuing Consumerism* by Galen Bodenhausen and Northwestern University Researchers

- Found that being labeled a consumer, versus a term like citizen or individual, can lead to negative, stereotype-consistent characteristics given its linguistic-biasing effect. These behaviors include reduced social engagement, negative affect, selfishness, and competitiveness. The experiment was designed in part to empirically test famed economist and sociologist Thorstein Veblen's theory of "conspicuous consumption." Specifically, the researchers hypothesized that "activation of materialistic thinking is likely to elicit a vicious cycle in which one feels continuously dissatisfied relative to individuals who own more."
- Does TM law treat the purchasing public as a dehumanized, objectified, and purely economic-focused entity by use of the very word consumer?

6070.5 CLE Mandate: Actionable steps to take to recognize and address implicit bias.

- Be aware of it. Think about your implicit, unconscious biases.
- Question yourself, question snap judgments.
- Take an implicit bias test (IAT) to delve deeper and learn your implicit biases/schemas to then be aware of them and not let them hurry your lawyering.
- Areas of law where discretion is vested to others are ripe for it and so are the areas to discuss, address and combat it: judges, juries, patent examiners, prosecutorial discretion, legal hiring--anywhere that vests lots of discretion.
- Write, hold programs, seek jury instructions in your trials, send letters to PTO to train Examiners on it!
- Pay attention to word choice in legal writing and whether you are using implicit biases.

Conclusions – Implicit Bias in IP Due to Systemic Law Issues

- Copyright & Implicit Bias: AI learning and fair use test itself risks impounding historical group bias issues into modern AI tools.
  - Allow broad fair use so historical biases are not impounded into the new technology.
- Patent & Implicit Bias: Substantive law vests massive discretion to examiners and examiners are heavily male with lower grant rates to women.
  - Hire more women, make tests less subjective to strip our implicit bias risk in the super discretionary areas of law.
- Trademark & Implicit Bias:
  - Amend Lanham Act to make it more person focused rather than abstract consumer that dehumanizes implicitly the citizenry and may make finding actionable confusion even easier.