Hogan Lovells

Retail X Generative AI:

Navigating the Future of Retail

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Fashion X Generative AI: IP Protection of a Design when GenAI is Used in its Creation

Leading brands have long used design patents to protect the visual appearance of their fashion designs. But to what extent can fashion designers obtain design patent protection for designs generated using AI?

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AI in Fashion Design

The AI revolution has taken the world by storm, and the fashion world is no exception. Fashion designers have already started using generative AI tools to generate fully-formed fashion designs.[1] Generative AI is also used as part of the design process in other ways. For example, designers can prompt a machine learning (ML) model to generate a specific design element, such as a pattern.[2] Or, a designer might use AI to generate one or more potential designs for inspiration.[3] Finally, a designer might start with an AI-generated design, and then modify that design using their own creative sense.

Fashion brands use AI systems that take a variety of different forms. Some companies may use commercially available AI systems, such as Stability AI's Stable Diffusion®, which are trained based off publicly-available images.[4] Others might design their own in-house AI. An in-house AI might be specifically created to solve certain design problems, and trained to use certain styles and techniques. Finally, some companies have created AI systems trained entirely on company-generated design images.[5]

USPTO Guidance

While the USPTO will not grant a design patent for designs invented entirely by AI, the creations of human-AI collaboration may be eligible for design patent protection.[6]

On February 14, 2024, the USPTO published new guidance on the patentability of inventions, including designs, generated with the help of AI. Importantly, the USPTO stated that when a human makes a "significant contribution" to an AI-generated design, the human can be considered an "inventor" and the design will be eligible for design patent protection.[7]

Just what constitutes a "significant contribution" is a much trickier question. The USPTO indicated that this will be considered case-by-case, and there is no bright-line rule.[8] However, the factors for determining who is an "inventor" will be drawn from existing case law, as stated in Pannu v. Iolab Corp.: a human designer is an "inventor" if they "(1) contribute in some significant manner to the conception or reduction to practice of the invention, (2) make a contribution to the claimed invention that is not insignificant in quality, when that contribution is measured against the dimension of the full invention, and (3) do more than merely explain to the real inventors well-known concepts and/or the current state of the art."[9]

The USPTO presented several guiding principles for applying these standards to a joint human-AI invention. First, a designer is unlikely to become an "inventor" by merely identifying or selecting an AI-generated design. If the designer selects a design and adds their own "significant contribution," however, the designer should be able to obtain design patent protection.[10] Second, a person who "designs, builds or trains an AI system" to solve a specific problem, such as may involve use of a specifically-curated set of training data, may be an inventor for all designs generated by that system.[11] Finally, while a person might not become an inventor merely by seeking output from an AI system, "a significant contribution could be shown by the way the person constructs the prompt in view of a specific problem to elicit a particular solution from the AI system."[12]

1. Maghan McDowell, How Fashion is Using Generative AI In-House, Vogue Business (Mar. 25, 2024, 2:29 p.m.) *https://www.voguebusiness.com/technology/how-fashion-is-using-generative-ai-in-house*
2. Id.
3. Id.
4. Nyima Jobe, How AI is 'Amplifying Creativity' in the Fashion World, Guardian (Mar. 25, 2024, 3:22 p.m.) *https://www.theguardian.com/fashion/2024/feb/08/ai-london-fashion-week#:~:text=Brands%20such%20as%20Heliot%20Emil,visualising%20different%20materials%20and%20patterns*
5. Marek Bartek, Heliot Emil's Latest Collection Bridges Human and Artificial Creativity, Numero Netherlands (Mar. 25, 2024, 3:50 p.m.) *https://www.numeromag.nl/heliot-emils-latest-collection-bridges-human-and-artificial-creativity/*
6. Inventorship Guidance for AI-Assisted Inventions, 89 FR 10043 (Feb. 13, 2024) ("While AI systems and other non-natural persons cannot be listed as inventors on patent applications or patents, the use of an AI system by a natural person(s) does not preclude a natural person(s) from qualifying as an inventor (or joint inventors) if the natural person(s) significantly contributed to the claimed invention"; "The Federal Circuit has interpreted 35 U.S.C. 171 such that the inventorship inquiry is the same for a design patent and a utility patent. Therefore, this guidance regarding AI-assisted inventions applies not only to utility patents and patent applications but also to design and plant patents and patent applications").
7. Id. ("In the context of AI-assisted inventions, natural person(s) who create an invention using an AI system, or any other advanced system, must contribute significantly to the invention, as specified by the Pannu factors").
8. Id.
9. Id., quoting Pannu v. Iolab Corp., 155 F.3d 1344, 1351 (Fed. Cir. 1998).
10. Id. ("Therefore, a natural person who merely recognizes and appreciates the output of an AI system as an invention, particularly when the properties and utility of the output are apparent to those of ordinary skill, is not necessarily an inventor. However, a person who takes the output of an AI system and makes a significant contribution to the output to create an invention may be a proper inventor. Alternatively, in certain situations, a person who conducts a successful experiment using the AI system's output could demonstrate that the person provided a significant contribution to the invention even if that person is unable to establish conception until the invention has been reduced to practice.")
11. Id. ("In some situations, the natural person(s) who designs, builds, or trains an AI system in view of a specific problem to elicit a particular solution could be an inventor, where the designing, building, or training of the AI system is a significant contribution to the invention created with the AI system").
12. Id. ("Merely recognizing a problem or having a general goal or research plan to pursue does not rise to the level of conception. A natural person who only presents a problem to an AI system may not be a proper inventor or joint inventor of an invention identified from the output of the AI system. However, a significant contribution could be shown by the way the person constructs the prompt in view of a specific problem to elicit a particular solution from the AI system").

Recommendations and Best Practices

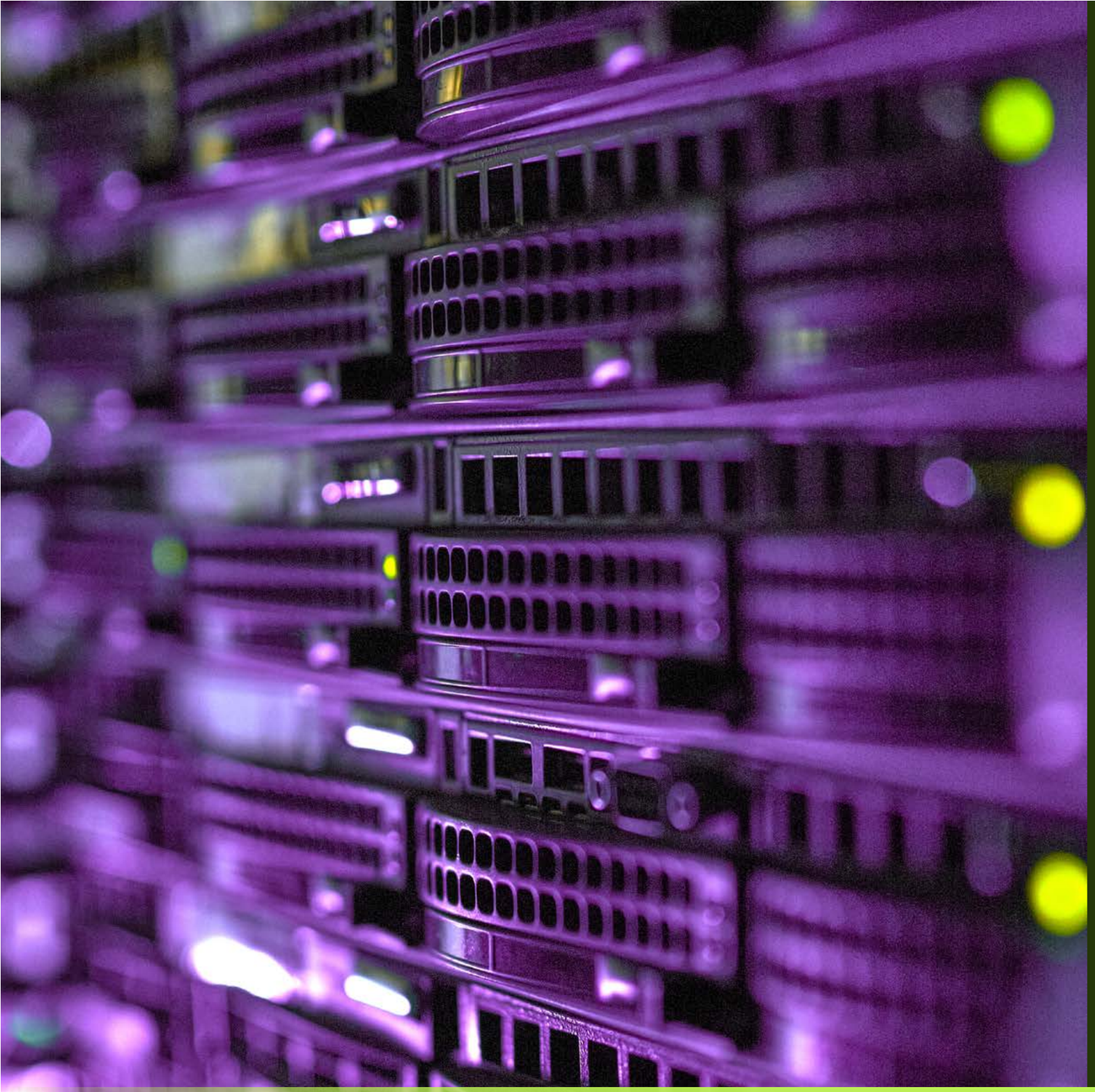
While the USPTO guidance clarifies that some human-AI collaborations can result in patentable designs, the guidance does not provide a bright-line rule. However, some general recommendations naturally flow from the guidance.

When AI is merely used as a tool to help support the design process, resulting designs are likely to be eligible for design patent protection. In contrast, when AI is used to perform the entire design process, resulting designs are not eligible for design patents, or other forms of intellectual property protection, under the USPTO's guidance. With this in mind, designers who seek design patent protection should limit AI prompts to solving specific problems, and avoid prompting for a fully-formed design.

To help ensure designs will be eligible for design patent protection, designers who use AI tools should carefully document their design processes, including specifically identifying which elements were generated by AI and which were human-generated, and carefully documenting any uses of human creativity. Designers should also document the input and training provided to the AI to generate these elements. This documentation provides proof that there is a human "inventor," rendering the design eligible for a design patent, and may also be necessary for certain USPTO disclosures, as inventors must disclose certain uses of AI to the USPTO before obtaining (and potentially subsequently validating) design patent protection.[13]

Finally, to the extent that companies have the resources and ability to build an internal AI, an internal AI may represent a best-case scenario for businesses. Because the designers of the AI system can be listed as inventors for designs generated by their AI, all designs flowing from an internal AI can become eligible for design patent protection. At the same time, the company can reap the benefits of using AI to generate full designs.

13. Inventorship Guidance for AI-Assisted Inventions, 89 FR 10043 (Feb. 13, 2024) (discussing that IDS should disclose AI contributions to the extent they call human inventorship into question).



Privacy X Generative AI: Privacy Considerations for AI Deployments

AI can feel like a brave new world. In many ways, it is. However, when AI tools process personal data, it is important to remember two basic lessons that we have learned from deploying other digital technologies:

1. Data privacy considerations should be addressed throughout the lifecycle of AI tools; and

2. Existing privacy compliance frameworks may generally be well-suited to address the data privacy considerations, though adaptations may be required.

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Below we address some of the key privacy compliance considerations that organizations should consider when deploying AI tools.

Privacy Statements Matter

When AI tools process personal data, traditional privacy considerations and legal requirements generally apply. Organizations should therefore confirm that AI tools process personal data in ways that are consistent with their privacy statements. If AI tools collect, use, retain, or disclose personal data in ways that are not consistent with existing privacy statements, that may expose an organization to litigation or enforcement actions. So, organizations may wish to foster open communications between business units and privacy legal and compliance functions. By doing so, organizations will be better able to identify and address potential issues raised by innovative AI tools that process personal data.

Additionally, many organizations may benefit from enhancing their privacy statement disclosures regarding their uses of AI. Even absent strict legal requirements regarding specific AI disclosures in privacy statements, enhanced language can help mitigate risk for organizations that rely on privacy statements to support establishing informed consent for the use of AI tools for certain processing.

Third Party Considerations

Like many digital tools, AI often involves third-party outsourcing. Organizations must therefore assess the roles that third parties play when providing AI tools. If AI vendors are to be considered "service providers" or "processors," organizations must assess whether the third parties are appropriately restricted from using personal data for their own purposes. However, many AI providers insist on terms and conditions that permit them to use customer data for a range of independent purposes, such as product improvement or data enhancement. While there may not be a legal prohibition on permitting third parties to use personal data for such purposes, such uses may require consent or the provision of opt out rights. Consumer organizations should therefore carefully assess the data processing roles that providers of AI tools will take on and the compliance requirements for supporting such roles.

Additionally, in the United States, plaintiffs' attorneys are testing the bounds of eavesdropping and wiretapping laws, alleging that the use of third-party AI tools (including chatbots powered by third-party AI systems) implicates eavesdropping and wiretapping laws if consumers do not consent to the use of the tools. The plaintiffs allege that third-party AI tools capture electronic communications between consumers and e-commerce platforms without knowledge or consent.

Though courts may eventually clarify that such claims are meritless, consumer-sector organizations are considering whether and how to mitigate litigation risk by obtaining affirmative consent to the use of third-party tools, such as through pop-up banners or check boxes.

Sensitive Personal Data: Inputs vs. Outputs

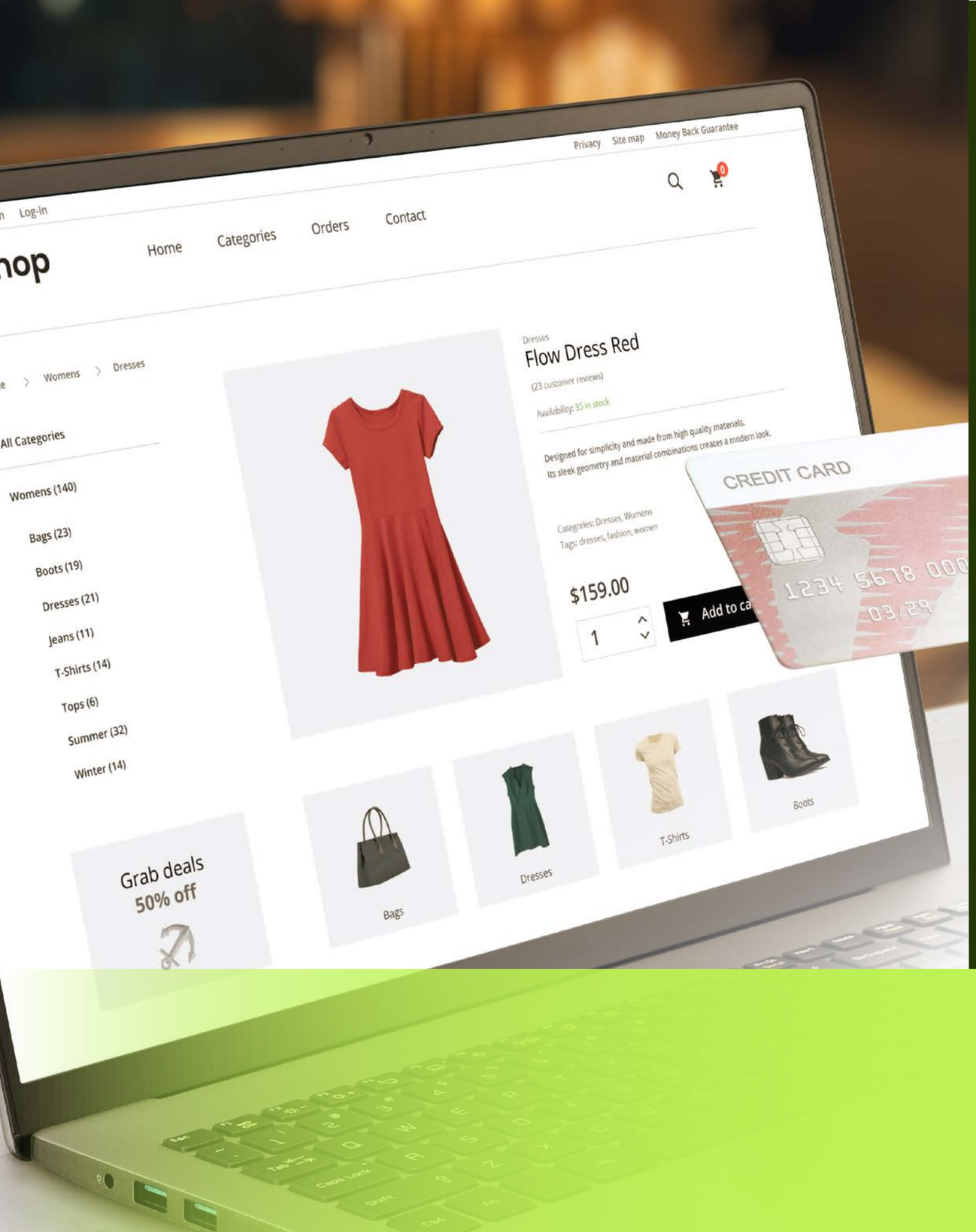
AI systems are renowned for their ability to connect the dots and analyze data faster than existing methods. This analytical power can deliver great benefits to consumer-facing organizations, such as identifying consumer trends or opportunities to enhance engagement and loyalty. But AI-driven analytics can create surprising challenges.

Many consumer-sector organizations choose to minimize the collection of, or even avoid collecting, sensitive personal data, such as race, health, or immigration status. The benefits of collecting sensitive personal data, if any, may be outweighed by the compliance requirements, such as obtaining express consent to the processing of such data.

Consumer organizations should recognize, though, that AI tools may generate insights regarding sensitive personal data characteristics even when processing innocuous personal data. For example, a person's name, postal code, and transaction history may, when subject to AI-driven analytics, reveal or suggest a person's race. As many privacy laws regulate the processing of inferences that reveal sensitive personal data, as well as the processing of sensitive personal data itself, AI tools may make inferences that create new compliance obligations for consumer-sector organizations. So, when deploying AI tools, organizations should monitor and analyze the outputs to assess whether they contain insights or inferences regarding sensitive personal data.

Concluding Thoughts

AI has the potential to deliver substantial insights and efficiencies. It is hard to imagine a large retail brand succeeding in the current market without availing itself of the benefits that AI has to offer. However, outsourcing business operations to AI should be undertaken thoughtfully. Retailers are well advised to assess whether AI tools are fit for purpose, confirm whether appropriate controls are in place to address legal risk, and monitor the performance of AI tools to assess whether they continue to operate as desired.



Shopping X Generative AI: AI-Powered Shopping Assistance

Generative AI continues to make waves across industries in 2024 and the fashion and retail industry is no exception. Retailers are taking advantage of generative AI technology to develop smarter and adaptable virtual shopping assistants that can understand and interpret human language with greater accuracy, which unlocks the potential for chatbots to handle a wider array of tasks and to provide a more comprehensive and personalized online shopping experience.

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A New Wave of Generative AI-Powered Chatbots

The chatbots of the past are less flexible in the type and scope of assistance they can provide. Such chatbots are rule-based, meaning that these bots are taught to answer a defined universe of questions that are manually pre-programmed and to use simple keywords to find patterns in the customer's questions to account for deviations in how sentences are phrased. While these chatbots can be helpful with a specific set of queries, the customer experience is stunted by the chatbot's limited capability to engage beyond its pre-defined script.

Personalization is the name of the game when it comes to this new generation of chatbots. The latest rollouts of generative AI-powered bots use large language models that train on datasets, including customer's searches, purchase history, and feedback, and can perform natural language processing tasks, like sentiment analysis, text generation, and translation, to understand the intent and context of the customer's queries. Such advancements allow the bots to act like shopping assistants, who can provide more personalized responses and recommendations in a conversation-like dialogue, mimicking the dynamic interaction a customer would have with a sales associate in a brick and mortar store.

Adoption of Virtual Shopping Assistants in the Retail Industry

Luxury retailers, online marketplaces, and even payment technology companies are leveraging this new technology to elevate the online shopping experience by making the search process more intuitive.

Because the generative AI-powered shopping assistants can be trained on a retailer's extensive product catalogs, customer information, and data from across the internet, shopping assistants are equipped to answer questions about specific products, research product categories, compare prices, and offer recommendations for specific occasions and use cases. For example, a customer could provide a range of prompts—such as "what are good gifts for coworkers," "hosting Superbowl party," "considerations for buying a new car," or even modern trends like "balletcore"—and receive cross-category results that can be further fine-tuned through additional parameters and requests. Luxury fashion houses are also experimenting with AI personal shoppers that would provide recommendations for niche and selective luxury goods from a house's family of brands for the more discerning repeat consumer. Payment processing companies also want a piece of the action by creating their own marketplaces, shopping assistants, and technology solutions, instead of simply being third party providers to retailers. Certain payment processing companies, like many of its e-commerce competitors, now allow customers to scan bar codes of products in brick and mortar stores to search for customer reviews, inventory information, and product details; to search using images and find online options for products they come across in day-to-day life; and to access a shopping assistant who can make the use of these features seamless from research to checkout.

A benefit of using large language models to power these shopping assistants is that the assistants are trained to adapt to an individual consumer's unique profile, affinity, and colloquialisms using large sets of data over time to deliver tailored recommendations without the need to fill out the interminable questionnaires that the previous generation of personalized online shopping experiences required. By expanding the search capabilities in a one-stop shop, customers can avoid the endless scrolling that comes with e-commerce, and retailers can engage and influence customers even earlier in their shopping experience—when they are still researching their options and are open to recommendations—which could boost conversion rates and sales. The new technology also collapses the experiences between online shopping and in-store shopping, by providing customers the searchability of the online shopping experience in brick and mortar stores while potentially deepening the relationship between customer and retailer.

Legal Forecasts and Implications

Increased Supply and Demand of Technology Startups and Partnerships

As more and more retailers adopt generative AI-powered shopping assistants to maintain a competitive edge, we can expect to see retailers expand their AI bot capabilities, through building custom features in house, acquiring existing AI companies, or by partnering with startups or platforms that offer development frameworks to create chatbots. At the recent *Silicon Valley M&A Forum*, a tech investment banker on the panel stated that deals involving generative AI companies consisted of only 5% of the M&A landscape before the introduction of ChatGPT, but that percentage has since skyrocketed to 20% in less than two years and will continue to grow as more funding and attention is being invested in nurturing AI talent. With the increasing demand for virtual shopping assistants and generative-AI offerings in general, we will see a flood of new startups offering chatbot tools and infrastructure to accommodate retailers of various sizes, industries, budgets, and scalability. Technology giants have also begun to develop their own platforms for its existing and potential enterprise customers, which helps the companies cross-market a suite of products.

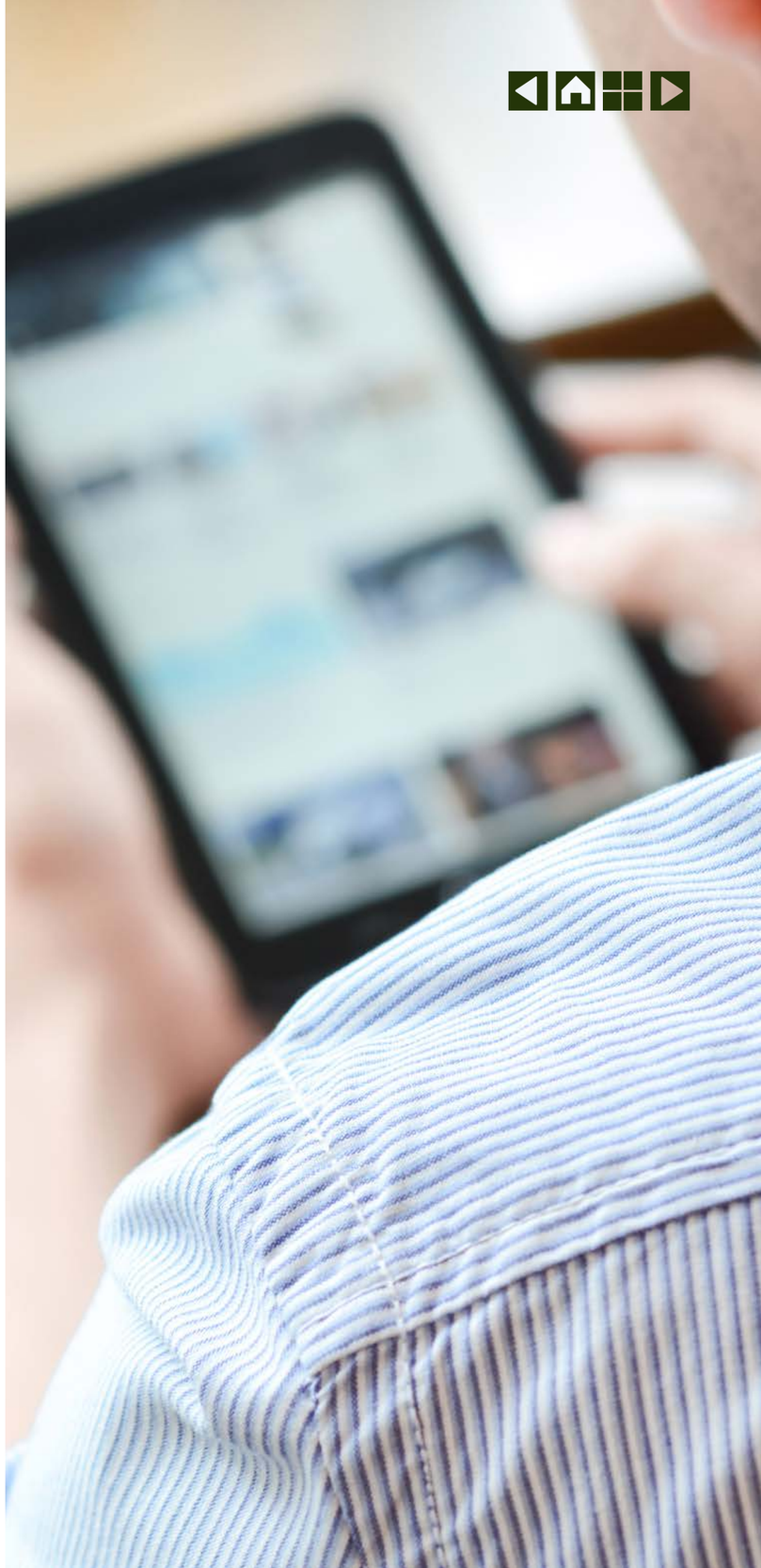
Challenges from Data Governance Issues

However, the new technology is not without its limitations. The search results and product details generated by the shopping assistants could include inaccurate or outdated information that are scraped from unverified sources on the internet. There is also a concern that non-public and personal data could be used to train the chatbots. Not only do these concerns weaken customer trust and goodwill, but they could lead to publishing unlawful or defamatory speech, violating data privacy rights, or misappropriating intellectual property rights, which may expose retailers to *lawsuits*.

Impact of Litigation on the Future of Shopping Assistants

Several cases regarding the legitimacy and governance of AI-generated content are currently pending in federal courts, most of which concern copyright infringement claims. Most recently, in Gonzales v. Gonzales, the U.S. Supreme Court considered the question of whether algorithmic recommendations should receive the full legal protections of U.S. Code Section 230, which shields internet platforms, including online marketplaces, from being held responsible for the material posted on their sites. Although the case largely applies to user-generated content for platforms such as traditional search engines, the Supreme Court's decision may have implications on the future of AI-generated chatbots and search features and whether such interfaces can rely on the Section 230 safe harbor protections if they are not merely linking or repeating material (as in the case of many traditional search engines) but instead using predictive algorithms to edit or summarize third-party material.

On March 18, 2024, the Supreme Court came down with an opinion that sidestepped the issue for now and rejected efforts to limit the scope of the protections that Section 230 creates for the technology platforms. The decision is touted as a temporary victory for technologists, who remain free to develop and innovate new uses for generative AI without restraint from legal precedence, but the laws are far from settled. In the meantime, the adoption of generative AI-powered shopping assistants will become increasingly prevalent and inevitably shaped by the legal landscape as the law, like the technology it governs, continues to adapt.



Marketing X Generative AI: The Protectability of Marketing Campaigns Designed With GenAI

If, as Dorothy Parker is attributed as saying, creativity is a wild mind and a disciplined eye, the appeal of using generative AI to create marketing copy is obvious.

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In the past year, the fashion and retail industry has been busy experimenting with generative AI ("genAI") to help design and create marketing campaigns and personalized advertisements.[1] Given genAI's enormous potential to unlock time and money savings, this trend will likely continue and become ubiquitous in fashion. However, before opting to use genAI for any and all tasks, brands should give careful consideration of the impact the use of genAI can have on intellectual property protections, such as copyright.

Specifically, the Copyright Act affords protection to "original works of authorship,"[2] and this has long been interpreted to mean human authorship. On the tail of genAI tools entering the marketplace, the Copyright Office issued guidance for registering works containing materials generated by artificial intelligence ("AI").[3] Specifically, the Copyright Office reiterated that copyright can protect "only material that is the product of human creativity." For works containing AI-generated material, only the human-authored aspects of the work can receive copyright protection and only if it is sufficiently creative. Yet whether a work is copyright protectable is "necessarily a case-by-case inquiry" that depends on "how the AI tool operates and how it was used to create the final work."

Applying that "case-by-case" inquiry, the Copyright Office refused to register an AI-generated image titled "Théâtre D'opéra Spatial," winner of the 2022 Colorado State Fair's annual fine art competition.

To create the visually stunning work, the artist input at least 624 text prompts to Midjourney – an image genAI program – to arrive at the initial version of the image.

He then used Adobe Photoshop to remove flaws and create new visual content and upscaled the image using Gigapixel AI. Nonetheless, the Copyright Office held that the artist's text prompts only "influence[d]" what Midjourney generated, and that the traditional elements of authorship was determined and executed by the program.

What does this then mean for the use of genAI in creating marketing campaigns? Based on recent Copyright Office decisions, advertising campaigns created entirely through the use of genAI tools – even when the result of significant human input and selection – may not be copyright protectable. This is because the Copyright Office has indicated that "guid[ing] the structure and content" of images is not sufficient, as it is the genAI tool "that originate[s] the traditional elements of authorship" in the resulting generated images.[4]

Théâtre D'opéra Spatial

1. Vogue Business, How fashion is using generative Al in-house, MAGHAN MCDOWELL, October 31, 2023.
2. 17 U.S.C. 102(a); *Burrow-Giles Lithographic Co. v. Sarony*, 111 U.S. 53, 58 (1884).
3. Copyright Registration Guidance: Works Containing Material Generated by Artificial Intelligence, 16190 FEDERAL REGISTER, VOL. 88, NO. 51, 37 CFR PART 202, MARCH 16, 2023, *https://www.copyright.gov/ai/ai_policy_guidance.pdf*
4. *2023.02.21 Zarya of the Dawn Letter (thomsonreuters.com)* at p. 8 (citations omitted).

This then begs the question, can genAI tools be used at all in the creation of marketing content and still result in a protectible end product? Based on current guidance, it will depend on when and the way genAI tools are being used in the creative process.

1 *Brainstorming Marketing Ideas*

Brands are using genAI tools to assist in the brainstorming of ideas and concepts for new marketing campaigns; in other words, exercising that wild creative mind that Ms. Parker identified. If thereafter the design and development of the marketing is done by humans,[5] then the resulting work is likely protectable.[6] For example, if a brand uses a genAI tool to devise an intermediate image, and thereafter (a human) makes "substantive" edits to that image, the result may be deemed copyrightable.[7] However, the protection would be limited, as copyright would not protect against third party use of the intermediate image.

2 *Drafting Product Descriptions and Ad Copy*

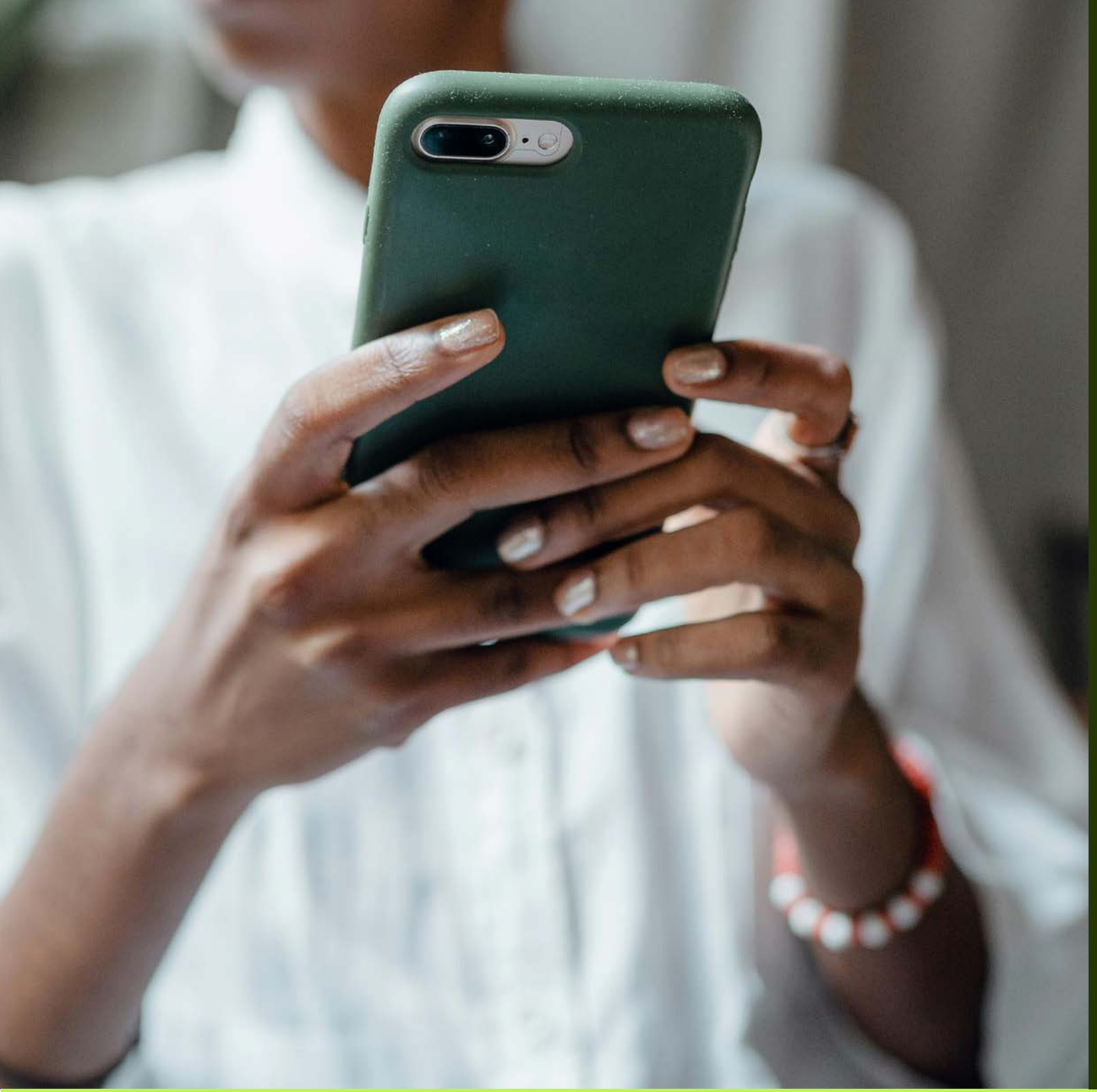
Brands are using genAI tools to assist in drafting product descriptions and ad copy. These descriptions may not be protectible. The Copyright Office looks at whether text is "written entirely by [human authors] without the help of any other source or tool, including any generative AI program."[8] Where genAI is used to help in writing the text then, the Copyright Office appears less inclined to find that text registrable. But since product descriptions are frequently routine and may not be works a brand is interested in protecting, the productivity gains obtained from genAI could be determined to outweigh the loss of copyright protection.

3 *Creating Different Versions of a Marketing Campaign*

Brands are also using genAI to create multiple versions of an advertising campaign, so as to target different audiences or create differentiation between media platforms. This provides brands with more diversified options and formats of a single ad. Although the original advertising may be protectible depending on the nature and scope of use of genAI tools in its creation, it is not clear whether derivative versions of that campaign created with genAI tools are protectible. Based on current guidance, it would seem that the Copyright Office would look closely at the input compared to the output, and nature of the tool used to assess the extent of human authorship in creating the derivative works.

In short, the use of genAI tools at certain stages and for certain tasks in the creative process may strike the balance of obtaining the benefit and efficiencies afforded by genAI tools while not foreclosing copyright protection over the final result. But regardless, it is clear that brands are recognizing the value proposition associated with the use of genAI. As the legal landscape of IP protection plays catch-up and orients itself, brands will have to expect that the outputs of their use of genAI could be copied without certainty on the legal recourse being available to them.

5. This includes with the assistance of common editing tools that are "controlled and guided" by human authors.
6. *2023.02.21 Zarya of the Dawn Letter (thomsonreuters.com)* at p. 9 ("when artists use editing or other assistive tools, they select what visual material to modify, choose which tools to use and what changes to make, and take specific steps to control the final image such that it amounts to the artist's own original mental conception, to which they gave visible form") (internal citations omitted).
7. *2023.02.21 Zarya of the Dawn Letter (thomsonreuters.com)* at p. 11-12.
8. *2023.02.21 Zarya of the Dawn Letter (thomsonreuters.com)*



Bias in Retail X Generative AI: Flipping the Narrative of AI Bias in the Retail Industry

In a world dominated by continuous technological progress, the business landscape is simultaneously undergoing a transformative shift as artificial intelligence (AI) is integrated into day-to-day business operations, including in the retail sector. AI tools offer solutions for enhancing inventory and supply chain management, optimizing pricing strategies, improving customer service, and providing personalized product recommendations. Alongside the promises of enhancing efficiency and innovation, however, obstacles arise, one of which is the emergence of AI bias. Understanding the intricacies of this challenge is crucial for businesses seeking to make use of the full potential of AI systems and mitigate against the risks they may pose.

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What is AI Bias?

AI bias arises when algorithms, inadvertently or otherwise, reflect and perpetuate existing societal prejudices. Bias can seep into AI models through unrepresentative or incomplete training data, prejudiced algorithms, or the unintentional reinforcement of human bias during the development of an AI tool. And due to feedback loops, biases can be reinforced over time and exacerbated, such that AI systems may "learn" to be more and more biased.

This phenomenon has the potential to be particularly problematic in shopper profiling, where AI is used to qualify consumers for offers or promotions, as well as in product development and testing where user experience is implicated. The so-called "black box" problem, which refers to the lack of explainability in complex algorithms, can cause further concern, especially in areas where transparency and accountability are important.

Overcoming Human Bias

Much ink has been spilled about the potential perpetuation of bias by AI, and the risks and regulations surrounding that potential. But the reality is that AI is not itself biased, it simply reflects the human bias we put into it, either through the data we train it on or the assumptions we make. In this way, and far from being destined to perpetuate human bias, there is an opportunity to flip the narrative on AI, and recognize it as a potential tool to overcome the biases AI can help us to recognize, including in the retail sector.

One potential way to employ AI to this end is to use it to detect discrimination. Detecting discrimination in human decisions is often difficult because it is impossible to understand everything influencing a person's decision-making process. No one wants to think of themselves as biased, and often, the factors that influence us are quite complex, such that we may not even be aware of the implicit biases we carry. But detecting bias in AI systems is, in many ways, more accessible. It's a statistical exercise, and one which benefits from the vast amounts of data on which AI is trained. By testing the AI models we use and comparing their output to statistical information about the relevant populations, people, places, or things, we are able to identify whether AI models are, in fact representative, or if their training data or programming requires modifications to make them so.

In addition to detecting discrimination, it may likewise be possible to use AI in an effort to try to overcome it. While counteracting bias in humans can be challenging by virtue of the nature of human psychology, AI is in many ways simpler to calibrate and can be used as a check on human decisions, adjusting potentially biased human decision-making according to the unbiased metrics on which it has been trained.

Following this approach, the legal landscape concerning AI deployment might adapt as our understanding of AI bias deepens. Currently, regulatory frameworks primarily demand transparency, fairness, and comprehensive documentation from companies developing or using AI technologies. These standards are imperative not just for ethical reasons but also for legal compliance, aiming to protect consumer rights and prevent discriminatory practices. However, as AI systems are increasingly recognized as tools that can both perpetuate and mitigate bias, the criteria for regulatory compliance might need a recalibration. For instance, companies that proactively use AI to identify and correct biases might argue for a differentiated regulatory treatment. This could include allowances for adaptive AI algorithms that require iterative updates to improve fairness, which might not strictly adhere to traditional transparency guidelines.

Moreover, the legal system itself may need to evolve to better accommodate the nuances of AI-driven decisions. Legal standards could be recalibrated to account for the proactive measures companies take using AI to detect and counteract bias, thereby setting a precedent that encourages more responsible AI use. Such a shift would not only enhance consumer protection but also promote innovation in AI governance. By aligning legal standards with the latest technological advancements and their applications for bias mitigation, regulators can foster an environment where AI contributes positively to equitable business practices.

In this way, and while bias is often framed as a risk of AI, when used properly AI may in fact be a tool to mitigate it.

Looking Forward

Far from being destined to perpetuate human bias in the retail sector, AI can be an opportunity to overcome it. To do so requires an understanding of the origins of AI bias, as well as solutions to mitigate against its emergence and impact. With careful planning, monitoring, and analysis, businesses can leverage AI systems as powerful tools to enhance objectivity and fairness within their operations and to mitigate against the human biases AI can help us to recognize. After all, the success of AI in retail also depends on the trust and confidence of the consumers it serves. Making consumers aware of the benefits of AI in retail is essential, emphasizing personalized experiences, enhanced convenience, and improved service quality.

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Hong Kong
Houston
Jakarta*
Johannesburg
London
Los Angeles
Louisville
Luxembourg
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