



July 23, 2024

Chairman McHenry, Ranking Member Waters, and Members of the House Financial Services Committee:

Thank you for holding this hearing on artificial intelligence (AI) and for the opportunity to speak with you about AI in housing. Zillow appreciates the chance to describe our work in responsible AI that benefits consumers, employees, industry partners, and the broader real estate ecosystem.

Zillow was founded to bring transparency to the real estate market, and we've been working to transform the real estate experience since 2006. Empowering and advocating for consumers is core to who we are and why we exist. We foster transparency with industry-leading economic research, use those insights to build products and solutions to help consumers navigate an increasingly challenging housing market, and advocate for effective housing policies that make it easier, more affordable, and secure for renters, buyers, and sellers to move. Additionally, Zillow provides products and services to help real estate professionals streamline their businesses and deliver elevated customer experiences.

AI at Zillow

Artificial intelligence has been central to Zillow since our founding with the launch of the Zestimate, which was based on an early machine-learning model, marking the first time consumers could find an instant, free estimate of their home's value using details about the home, property tax assessment information, and sales histories. As our use of technology evolves, our consumer-focused approach to innovation remains at the core of our mission to make home a reality for more and more people.

Today, Zillow is more than just a place to shop – it's a place to transact: you're applying for a rental, paying your rent, virtually touring homes, connecting with an agent, and securing financing from our affiliated mortgage company Zillow Home Loans or through our lender network. Given Zillow has over 215 million unique users every month, it's vital that they are equipped with safe, trustworthy AI-powered tools that are developed and deployed responsibly to make searching for, renting, buying, or financing a home more equitable and transparent - and less daunting.

As a tech company, we are excited about the opportunities to continue to leverage AI internally and externally. Today, AI is an integral part of our products and solutions, with human support - through an employee, agent or a loan officer - and is critical to getting a consumer all the way through a transaction. Additionally, our AI-powered work includes Human-In-The-Loop (HITL) as an essential part of developing and deploying AI models, providing high-quality training labels and ensuring high-quality model output.

Zillow's Responsible AI Commitments

Throughout our AI work, we are guided by the following principles to inform the responsible development, evaluation, and deployment of AI technologies.

- *Fairness.* We prioritize fairness in the design, evaluation, and deployment of AI systems across Zillow, understanding the distinct influence the models we use have on housing opportunities. Therefore, we test and review our training data and models to help create a fairer marketplace. We strive to continuously improve our models to help ensure that they empower everyone, including historically marginalized communities and members of protected classes, by minimizing and actively avoiding recreating existing patterns of discrimination and segregation.
- *Safety & Accountability.* We strive to apply standards and best practices for collecting, using, and

validating both internal and external data used in our models and apply prevailing standards to assessing third-party models we may utilize. As AI technology continues to develop, we will work to be leaders in its responsible use in all contexts, considering both new opportunities and new risks. We aim especially to have a deep understanding of our domain and the impacts our AI systems have on our customers, their privacy, the security of their data, and their housing journey. We follow rigorous privacy and security policies and standards to ensure customer, partner, and employee data remains secure. When integrating external data into our models, we conduct thorough due diligence to assess its reliability and accuracy. We actively share our progress, learnings, and areas for improvement within Zillow to foster trust and accountability.

- *Transparency.* One of Zillow's founding principles is to empower people with information in what used to be an incredibly opaque and daunting process of searching for a home. We have the same opportunity with the AI systems we are building. We believe it is essential to ensure that consumers are aware when interacting with AI tools developed by Zillow and others and that they understand how Zillow uses these tools to improve their experience. We strive to empower customers to understand and decide whether and how their data is used to shape their experience on our platform. We are dedicated to fostering responsible AI dialogues and spearheading meaningful conversations on effectively and ethically integrating AI into the real estate industry to create internal efficiencies and new consumer tools. We actively engage with industry participants, lawmakers, nonprofit organizations, research institutions, and other stakeholders to shape and inform pro-consumer AI public policies.
- *Inclusiveness.* We build AI systems capable of understanding consumers', partners', and employees' unique needs, avoiding broad generalizations that might marginalize segments of our society. We evaluate our AI systems from diverse customers' perspectives and continuously work to improve our AI systems to serve our customers' needs throughout all stages of their home journey. We proactively identify AI models and systems where customers might be treated and prioritized differently. Through monitoring and evaluation, we test and analyze our AI technologies to mitigate the risk of bias and discrimination and provide equal opportunities and experiences for all.

AI for All Consumers

We continually leverage AI to drive innovation and enhance the shopping experience, making it more seamless and user-friendly for home shoppers. One great example of AI at work is our 3D home tours and interactive floor plans. These shopping experiences open up homes to people who cannot be there in person to tour them. They also help save consumers time: A Zillow survey reports more than half of prospective buyers regret wasting time visiting properties they would have skipped if they had access to the floor plan beforehand.

We have also deployed AI to help consumers search for homes on Zillow using natural language as if they were talking to a friend. In this case, a shopper doesn't have to select every filter to search, making it easier for shoppers to filter home options. It's a more intuitive and personalized search experience that saves time and provides more relevant results.

Personalization is another way AI adds ease to the way consumers use our site. Zillow uses AI to recommend homes to users based on their past search activity and other preferences. These models enhance housing choice by leveraging AI to broaden search options, reduce bias, and show all consumers a wider range of homes from diverse geographic areas. This ensures fair and accurate results,

helping consumers discover previously unknown options.

We are still in the relatively early stages of integrating generative AI tools into real estate transactions. As we continue to scale AI initiatives that simplify the buying and selling process through automation, personalization, and self-service, we'll start seeing tools and products streamline home shopping in tandem with our human partners and operators.

AI and Fair Housing

We place a great emphasis on transparency and fairness in the housing industry, which has a history of discrimination and bias against people of color and other historically marginalized groups. Many off-the-shelf AI tools, including large language model (LLM) technology, may disregard fair housing requirements and, when deployed, can perpetuate bias and undermine the progress in advocating for fair housing.

As an example of our commitment to Fair Housing and Ethical AI, Zillow developed an open-source Fair Housing Classifier for LLMs to establish guardrails to promote responsible and unbiased behavior in real estate conversations powered by LLM technology. With this open sourcing, anyone whose work touches real estate, technology and civil rights can – and should – take what we've built and use it to promote equity and fairness in real estate conversations within their own LLMs. The Classifier combines three responsible AI strategies into a single comprehensive system. These strategies include (i) a "stop list" of potentially discriminatory or offensive language, (ii) prompt engineering instructions to influence the behavior of the LLM, and (iii) a Fair Housing Compliance classifier, a machine learning model trained to detect potential Fair Housing Act violations.

We have encouraged the tech, civil rights, housing, and other communities to contribute and collaborate, which could lead to further innovation and expanded applications. This will help empower these sectors to strengthen fair housing practices and foster a fair and equitable real estate and technology landscape.

As AI advancements promise to accelerate innovation in real estate, we see the most significant opportunity in more than a half-century to address inequality and to create meaningful change at scale. One interesting opportunity is in home appraisals. Looking forward, we see a future where AI can help address appraisal bias when leveraged for remote home appraisals by using our 3D interactive floor plans and by assisting with the unbiased reconciliation of market transactions. These AI-based enhancements can be particularly impactful in helping unlock wealth for home sellers of color and making the appraisal process more accurate, transparent, and fair. In sum, AI can reduce potential biases compared to in-person appraisals, which may intentionally or unintentionally consider the demographics of the homeowner, neighborhood, or surroundings.

Creating transparency and increasing access to the housing market is a top priority for Zillow, and we will continue to responsibly utilize AI to help ensure every buyer, seller, and renter has as much information available to them as possible.

AI for Real Estate and Mortgage Industry Partners

One of the most significant opportunities with AI is to make it easier for those in the real estate industry to do their job and provide greater value to customers. Great real estate agents are critical to helping customers get home; we don't see that changing anytime soon. Much of our efforts are focused on using AI to help agents become even more productive and successful, with tools to help scale their operations,

automate mundane tasks, and access data that matters so they can focus on delivering what only they can: the human component. For instance, we've recently introduced AI Call Summarization, a tool that generates summaries and next steps of agents' conversations with customers, allowing them to focus on delivering what only they can: the human component.

Similarly, AI can help loan officers automate follow up notes and tasks, easily transfer data between tools, calculate finances, and save time to process more loans and better serve customers with a focus on the borrower's needs, rather than protected characteristics that may create implicit or unintended bias.

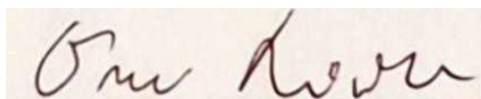
The structure and regulatory landscape in housing finance underscores the necessity for modernization and simplification of processes to better serve the evolving needs of today's consumers. Integrating AI innovation and modernization into mortgage compliance and risk management processes, while adhering to established regulatory frameworks, presents an opportunity to effectively reduce costs, streamline the mortgage process, enhance the consumer experience, and promote transparency. For instance, at Zillow, we are modernizing these systems with the consumer in mind, while adhering to the current regulatory structure. We believe the influence of modernization and technological opportunities is paramount, and we are dedicated to upholding fairness in all our AI systems.

AI for Employees

AI can empower employees to do more and go further. Employees are the backbone of Zillow, and they choose to work at our company in part because of our proven commitment to responsible innovation. We use AI to empower employees to continue shaping our industry with greater efficiency and excellence and, in the process, to accelerate their career development as the nature of work evolves.

Again, we are grateful to the Committee for holding a hearing on this important topic. Thank you for the opportunity to share Zillow's commitment to responsible AI in housing that benefits consumers, real estate and mortgage industry partners, and employees.

Sincerely,

A handwritten signature in dark ink on a light-colored background. The signature is cursive and appears to read "Ondrej Linda".

Ondrej Linda
Director, Personalization AI
Zillow Group