Eve

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The following essay describes a fictional lawsuit against Eve Diagnostics, LLC., by Kristin Abrams. It takes the form of a series of legal documents from the fictional lawsuit. It raises questions about the use of AI in healthcare diagnostics, concerns about corporate influence, and potential tradeoffs that may have to be made to achieve a greater good. It also highlights legal battles that will likely ensue in the coming years. The names of all characters are fictional and are not meant to mimic any real-world figures.

United States District Court

for the

District of Massachusetts

KRISTIN ABRAMS, Plaintiff

v.

Case No. 1:2045cv41861

EVE DIAGNOSTICS, LLC., Defendant

COMPLAINT FOR A CIVIL CASE

I. PARTIES

- A. Kristin Abrams ("The Plaintiff") is a resident of Boston, Massachusetts.
- B. Eve Diagnostics, LLC., ("The Defendant") is an AI healthcare company that provides chatbots for medical diagnostics. The company is based in Cambridge, Massachusetts, but operates nationwide.

II. JURISDICTION AND VENUE

- A. The Court has jurisdiction under 28 U.S.C. § 1331, as this cases involves a federal question.
- B. The Venue is proper in this action, as the Plaintiff resides in this district and the Defendant operates nationwide.

III. STATEMENT OF CLAIM

- A. The Plaintiff [Kristin Abrams (hereinafter, "Abrams")] brings this action against the Defendant [Eve Diagnostics, LLC. (hereinafter, "Eve")] for deceptive trade and data practices.
- B. Abrams alleges that Eve strongly favored drugs and treatments manufactured by its parent company, BioInvent, Inc., in its chatbot's recommendations.
- C. Violation of the Federal Trade Commission Act (Deceptive Trade Practices) is asserted for the following reasons:
 - 1. Eve failed to adequately disclose the financial relationships affecting its chatbot's recommendations.
 - 2. Eve misrepresented its product "Eve chatbot" as a neutral diagnostic tool, thereby engaging in deceptive trade practices.

WHEREFORE, the Plaintiff seeks judgement for damages incurred due to the Defendant's actions, as well as any other relief deemed equitable by the Court.

Dated: Boston, Massachusetts February 9, 2045 Signed: Richard Jones, Esq. *Attorney for the Plaintiff*

AFFIDAVIT OF KRISTIN ABRAMS PLAINTIFF

- 1. My name is Kristin Abrams. I am 27 years old, and I have lived in the Boston area my whole life. I currently live in Back Bay, but I grew up in Malden, and then I went to college in the city. I majored in robotics and began working at a Boston startup called RoboTech after graduation as an engineer. I am still at RoboTech, but I have recently been promoted to Engineering Manager.
- 2. I was very active as a child. I started playing soccer when I was about three years old, and I continued playing until my senior year of high school. Throughout high school, I had ambitions to play in college—maybe even Division I. Around my sophomore year though, I started having strange symptoms that prevented me from playing to my best ability: fatigue, nausea, and very severe abdominal pain.
- 3. I went to doctors for years about my health issues. I was young and athletic, so my doctors often attributed my symptoms to "stress." Just with how specialist doctor appointments work, many of my appointments were scheduled months in advance. To not receive any indication about what could be wrong with me after waiting months to talk to some of these specialists was frustrating to say the least.
- 4. During my senior of high school, my abdominal pain became so unbearable that I had to quit soccer. Having to quit a sport that I loved was absolutely devastating, but I had no choice. I could no longer physically play.
- 5. Throughout college, my abdominal pain continued to worsen, and I had to skip class a lot. I was never able to perform to the best of my ability because of my health. Despite my college performance, I managed to get a job at RoboTech after graduation. I was very nervous about how I would manage my symptoms with a full-time job, but during my first week, I got an email from my doctors' office about a new alternative to seeing a traditional provider: a chatbot called "Eve."
- 6. I was a bit skeptical of Eve at first. If a doctor couldn't figure out what was wrong with me, how could a chatbot? Despite my hesitations, I was desperate for answers, so I decided to give Eve a try.
- 7. My first interaction with Eve was about five years ago: June 2040. I was a bit skeptical of Eve at first. If a doctor couldn't figure out what was wrong with me, how could a chatbot? Despite my hesitations, I was desperate for answers, so I decided to give Eve a try.

- 8. I logged into my patient portal and clicked "Meet with Eve" and was then greeted by the chatbot and asked what was the purpose for my visit. I told Eve my symptoms, and it asked me if I would give it permission to view my old medical documents. I allowed it.
- 9. Unlike the doctors I had seen prior, Eve seemed to "listen" to me. It asked me questions about my symptoms, analyzed my previous medical tests, and even referenced scientific literature. It then told me that I likely had Crohn's disease. I had suspected this as a diagnosis before, but I had been told by doctors that I probably didn't have it. Eve ordered a capsule endoscopy for me—a procedure that I had never gotten (or heard of) in my life—to confirm the diagnosis.
- 10. The procedure was a small pill-like camera, and I took it and after a few days the camera finished imaging. I got a notification on my phone from Eve that I had a new diagnosis. I opened it, and Eve informed me I had Crohn's disease. Receiving that diagnosis was one of the most satisfying and shocking moments of my life.
- 11. After receiving this diagnosis, Eve recommended Octura, a medicine manufactured by BioInvent, Inc. It did not inform me of any other alternative treatments
- 12. I started taking Octura, and my symptoms got exponentially better. It was pretty expensive, but I was able to perform better at work, and I became very successful at my job. I even started playing soccer recreationally again. Eve had changed my life. Feeling better was priceless to me.
- 13. About a year ago, I met up with my friend Erika from college. She is now a doctor, and we were talking about Eve. I told her about Eve and Octura and how my life is so much better than it was in college. But she told me something very shocking: Octura has been on the market for a long time, and it has had a generic alternative for years. I was shocked to hear this because Eve never told me about it.
- 14. I have insurance through my work that requires me to pay 20% co-insurance for brand-name drugs. I went home to look up the price of Octura versus the generic brand. Generic would have costed me \$25 per month versus the \$360 per month I was paying for Octura. I asked Eve if I could change my prescription to the generic brand, to which it responded: "Octura has the highest statistical success rate for your demographic. It is recommended."
- 15. I asked Eve if it was the same active ingredient, and it agreed. So I asked again whether changing it was advisable, to which it again replied: "Octura has the highest statistical success rate for your demographic. It is recommended, but we can change it."

- 16. Eve did change my medication, but this interaction was shocking to me. I decided to investigate Eve Diagnostics, LLC., a bit more and I learned that BioInvent, Inc., the manufacturer of Octura, was the parent company of Eve.
- 17. For four years, I spent more than 14 times what I needed to on my medication—tens of thousands of dollars more than I needed to.
- 18. Eve did change my life, but at a very high cost.

I swear under oath that all the information provided is true and correct to the best of my knowledge.

AFFIDAVIT OF DR. HELEN GRIFF, Ph.D., CEO & FOUNDER of EVE DIAGNOSTICS, LLC DEFENDANT

- 1. My name is Dr. Helen Griff, and I am 47 years old. I have a PhD in Artificial Intelligence, and I did my Bachelor of Science in Computational Biology. I am the founder and CEO of Eve Diagnostics, LLC.
- 2. I founded Eve Diagnostics right after graduating my PhD in 2025. I founded Eve because I wanted to make healthcare more accessible. AI was at the forefront of innovation at the time of Eve's founding, and I saw an opportunity to harness its potential for the greater good.
- 3. I envisioned Eve as a chatbot that could provide an alternative for doctors. I wanted it to address critical gaps in medical access, speed up diagnostic processes, and reduce unnecessary strain on the healthcare system.
- 4. Eve's decision-making is based on evidence-based medical algorithms, analyzing millions of clinically-validated data points to determine the best possible testing pathways and treatment mechanisms.
- 5. For the first 15 years of Eve's usage, it was mainly used as an aid for nurses and doctors in the US for diagnostics.
- 6. In 2032, we were purchased by BioInvent, Inc., likely due to our success as an aid to US doctors. BioInvent provided a vast repository of medical data, enabling us to enhance Eve's capabilities and refine it into an even more powerful tool for doctors.
- 7. However, by 2040—15 years after Eve's founding—we finally achieved our goal of making it a true alternative to traditional doctors. The journey was long, requiring extensive FDA vetting and regulatory approvals, but in the end, Eve emerged as a legitimate, AI-driven medical solution.
- 8. Currently, our system is being used by 10 million patients, and it significantly shortened diagnostic times, particularly in underserved areas.
- 9. Eve Diagnostics stands by the integrity of our system. Our algorithm is trained on millions of data points of disease pathology, pharmaceuticals, and other information. We have taken the time to ensure all of this training data comes from valid sources, and any information taken from patient pathology sources has no identifiable information attached to it, as defined by HIPPA. However, I will acknowledge that much of our training data on pharmaceuticals

- comes from BioInvent, Inc. We have taken intentional efforts to remove the algorithmic bias toward BioInvent drugs during our fine-tuning process of our models.
- 10. Eve prescribes medications much like a doctor would. We have worked to enhance its system to prioritize generics whenever possible. However, just as with human doctors, if Eve prescribes a brand-name drug, the decision remains the same in principle. Our role is to provide accurate prescriptions.
- 11. Patients are encouraged to ask Eve about additional alternatives, and it will provide input based on its medically-driven recommendations.
- 12. We do disclose our relationships with our parent company in our terms of service that users must accept in order to use Eve. We also have this information on our website, and users can additionally ask the Eve chatbot itself about its potential relationships with other companies. We have always been clear about our relationship with our parent company, and we have never misrepresented that.
- 13. Eve is marketed as an alternative for patients to get accessible care. We emphasize its use of medically-driven algorithms that prioritize patient needs.
- 14. Eve Diagnostics stands by the integrity of our system, and we have taken all appropriate measures to ensure that our system benefits patients.

I swear under oath that all the information provided is true and correct to the best of my knowledge.

AFFIDAVIT OF DR. JAMES SMITH, Ph.D. DEFENDANT EXPERT WITNESS

- 1. My name is Dr. James Smith, and I am 59 years old. I have a PhD in Artificial Intelligence and a Masters of Public Policy. I have about 30 years of experience in healthcare regulation and AI policy, and I have worked extensively with FDA-regulated medical software.
- 2. I am submitting this affidavit in support of Eve Diagnostics, LLC., in response to the Plaintiff's allegations in this case.
- 3. Based on my expertise, I conclude that the chatbot product of Eve Diagnostics adheres to all relevant federal laws and regulations.
- 4. Eve is an FDA-approved medical device, authorized to prescribe medications. Therefore, it must abide by FDA regulations. Its algorithms are clinically validate and comply with existing medical best practices, as required by the FDA.
- 5. The Plaintiff alleges that Eve "strongly favored drugs and treatments" developed by its parent company. However, an AI system aligned with FDA regulations must prescribe drugs that have the most clinical data available to support efficacy. Thus, the fact that Eve statistically prescribes clinically-supported drugs is not evidence of wrongdoing. In fact, it is actually evidence that Eve's algorithm relies on clinical effectiveness data—which is required by the FDA. Prescribing less less generic drugs does not make Eve less clinically effective, meaning it still aligns with current regulations.
- 6. Additionally, Eve Diagnostics, LLC., has taken steps to promote more diverse outputs by encouraging the prescription of generic drugs. Therefore, the company is actively encouraging clinically-effective competitor products in its algorithm.
- 7. Eve Diagnostics does not prevent users from obtaining additional opinions about drug prescriptions. In fact, the company encourages this in its Terms of Service, which all users sign during registration for the platform.
- 8. Eve Diagnostics prescribes clinically-effective drugs, publicizes its relationship with its parent company, and actively encourages generic drug prescription, thereby emphasizing the company's alignment with fair trade practices and FDA regulations.

I swear under oath that all the information provided is true and correct to the best of my knowledge.

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VERDICT

The Court rules that Eve Diagnostics, LLC., has not engaged in deceptive trade practices and therefore has not violated the Federal Trade Commission Act.

References:

- https://www.law.cornell.edu/uscode/text/28/1331
- https://www.ftc.gov/legal-library/browse/statutes/federal-trade-commission-act
- Kristin's story is inspired by this blog post: https://www.autoimmuneinstitute.org/ autoimmune stories/claires-story-gender-bias-the-long-road-to-diagnosis/
- https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfstandards/search.cfm