Global Evidence on Gender Gaps and Generative AI

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Generative AI has the potential to transform productivity and reduce inequality, but only if used broadly. In this paper, we show that recently identified gender gaps in Generative AI use are nearly universal. Synthesizing evidence from 14 publicly available studies that surveyed nearly 100,000 individuals across 26 countries, along with estimates from web traffic data on the gender of AI platform users, we show that the Generative AI gender gap is present in nearly all regions, sectors, and occupations. Using novel data from 17,000 participants who were offered the opportunity to try ChatGPT, we show that even when access is equalized, women are still less likely to use Generative AI than men. Our findings underscore the critical need for targeted interventions that go beyond access to address the structural and behavioral barriers that have resulted in a global gender gap in Generative AI use.

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Generative AI is expected to have profound economic and social impacts. Recent studies demonstrate that tools like ChatGPT have already begun to impact the skills, knowledge and productivity of professionals across various domains, including college-educated workers, customer support agents, job seekers, students, and entrepreneurs (Brynjolfsson, Li, and Raymond, 2023; Dell'Acqua et al., 2023; Noy and Zhang, 2023; Otis et al., 2023). Moreover, because these tools are often both widely accessible and easy to use, they have the potential to help billions of people from historically undeserved groups across the globe (Otis et al., 2023; Björkegren, 2023). This is especially true for women, who still face institutional, career, and cultural barriers that prevent them from the gaining valuable skills and knowledge needed to succeed at work (England, Levine, and Mishel, 2020; Goldin, 2021). If Generative AI lowers the barriers to gaining the skill and knowledge required to be productive at work, then these tools might especially benefit women.

However, work on the sociology and economics of technology adoption suggests that despite this potential, a multitude of frictions are likely to cause women to use Generative AI at lower rates than men. First, gender differences in the types of firms, jobs, and occupations women work are likely are likely to to limit women's exposure to this new technology (England, Levine, and Mishel, 2020). Such differences are often further reinforced by the gendered differences in women's personal and professional networks, further limiting diffusion and learning (Ibarra, 1992; Beaman and Dillon, 2018). Beyond differences in awareness, stereotypes and status differences can also lead women to be less likely to use new technology even when presented with the opportunity (Ridgeway, 2011). For example, women may face greater risk of being penalized or perceived as "cheating" when they choose to use Generative AI tools (Exley et al., 2024). And even when women do get to use these tools, their effectiveness for women might be hindered by the fact that these Generative AI systems are often trained on biased data (Guilbeault et al., 2024), including data from their mostly male users which can result in self-reinforcing gender gaps as these systems learn from, adapt to, and so sample from more men (Cao, Koning, and Nanda, 2023). Given the mounting evidence that using Generative AI can drive productivity and growth, these concerns highlight the need to understand when and if women are using this new technology.

Consistent with these concerns, in this paper we show that there is a large, persistent, and nearly universal gender gap in generative AI adoption. To do so, we first assemble data from 14 scholarly and practitioner study that we could identify which surveyed men and women about their use of chat-based generative AI tools like OpenAI's ChatGPT, Anthropic's Claude, and Google's Gemini. Our meta-analysis reveals a remarkably consistent gap: women are about 25% less likely than men to use this new technology. We further confirm the pervasiveness of this gap by analyzing novel data on the gender breakdown of visitors to leading generative AI websites. We again find gaps in AI use that hold in nearly all countries. Finally, we conducted a large-scale survey of 17,000 women and men in Kenya that offered participants the chance to try ChatGPT. This survey allowed us to

test if equalizing access to AI could close the generative AI gender gap. Even when access to AI was equalized, women remained less likely to engage with these tools. Our findings underscore the need to address barriers to adoption if generative AI is to benefit women equitably.

Our findings highlight how policymakers, managers, and researchers across the globe must urgently wrestle with and address the gendered adoption and use of generative AI. First, the consistency of the gender gap across over a dozen surveys and in estimates from web traffic data highlights that the data Generative AI platforms collect from their users is heavily skewed by gender. This imbalance——if not addressed—may result in inequities in who is more likely to benefit from these tools. Second, work on exploring how to enable women to use these tools is needed, as our study shows that simply equalizing access will not adequately close the gap. More broadly, and inline with work studying the impact of past technological revolutions on gender differences, without intentional efforts to address these usage gaps, Generative AI might not just perpetuate existing inequalities but potentially widen them.

Data and Results

To estimate the extent of the gender gap in Generative AI usage, we first identified what is to our knowledge every publicly available study that has surveyed people about their self-reported AI use along with their gender (see Appendix A for details). These 14 studies cover 90,066 individuals, ranging from US tech employees to science postdocs to working adults from 16 different countries. Rows 1-14 in Panel A of Figure 1 illustrates the percentage of women (red triangles) and men (black circles) using AI across these surveys. The figure shows a consistent pattern in generative AI adoption and use: men are more likely to adopt generative AI than women in all but one survey.

The size of these gender gaps is meaningful. In the US, targeted and nationally representative samples show a roughly 5 to 20 percentage point gap (rows 3, 6, 8, 9, 10, 13, & 14). For example, in a representative survey by the New York Federal Reserve we find that half of men used AI in the last 12 months compared to one-third of women (row 8). To further contextualize the magnitude of these gaps, Panel B of Figure 1 shows the gaps in relative percentages. We find that relative to the share of men who use AI, the share of women is 10 to 35% smaller. The exception is a Boston Consulting Group (BCG) study showing that women are 3% more likely to use AI than men in a convenience sample of 6,558 US tech employees. Assuming this outlier is not merely due to the statistical vagaries of survey sampling, it suggests that experience working in and using technology may play a critical role in eliminating the gender gap in Generative AI usage. However, across the other 83,508,000 individuals in our data, we find that women are much less likely to use AI than men in occupations ranging from postdocs across the globe (19%) to Kenyan small business

entrepreneurs (14%) to college students in the US and Sweden (25% and 31%). For 9 of the 14 studies, we were able to manually extract enough data to complete a formal meta-analysis. These 9 studies suggests that women are about 25% ($p < 0.0001$) less likely to use Generative AI tools than men (see Appendix C).

That the gender gap holds across people with such diverse backgrounds and regions suggests that the gap is not merely the result of women's under-representation in particular areas (e.g., as computer scientists or as workers in Silicon Valley). Panel B of Figure 1 additionally presents estimates from two prior studies and three new analyses that control for potential gendered differences in terms along dimensions ranging from location to field of study to preferences and beliefs. In all five studies, the adjusted gender gap persists, suggesting that the gender gap is not merely reducible to well-known differences in where or what women work on.

Reinforcing these findings is the fact that web traffic data also shows a substantial gap in who visits the websites of the world's most popular generative AI tools. Building on data described and validated in Koning, Hasan, and Chatterji (2022) and Cao, Koning, and Nanda (2023), Figure 2 shows data pulled from the web traffic analytics platform Similarweb on the gender breakdown of visitors to OpenAI's ChatGPT, Anthropic's Claude, Midjourney, and Perplexity. Globally, between November 2022 and May 2024, women made up only 42% of the roughly 200 million average monthly users who engaged with ChatGPT, 42.4% of Perplexity users, 39.6% of Midjourney users, and just 31.2% of Anthropic users. That the gap holds in web analytics data also suggests that estimated gendered gaps in use are not merely an artifact of gendered survey response bias.

Finally, we turn to potential solutions. While the potential mechanisms driving differences in men and women's AI usage are myriad (Appendix D summarizes mechanisms outlined in prior work), here we focus on a simple solution: equalizing access. If the gender gap is rooted in women being less likely to learn about or be invited to use new AI tools, then equalizing the opportunity to engage with an AI tool should close the gap.

To test if equalizing access explains—and so can close—the gender gap in AI use, we turn to a study that directly offered participants AI use. To do this, we use data from the Kenya AI Adoption Study (KAAS) which we launched in August 2023. The KAAS collected data on the demand for generative AI from 17,541 Kenyan Facebook users, crucially providing both men and women equal access to try out ChatGPT (Appendix A). The KAAS results show that women are approximately 12% ($p < 0.001$) less likely than men to use ChatGPT when presented with the opportunity to learn how to use these tools. Comparing to our meta-analysis estimate showing women are about 25% less likely to use these tools than men, the findings from this studies suggest that equalizing access might help shrink the gender gap but is unlikely to fully close it.

Discussion

The findings above document that gender gaps in AI are nearly universal. From mothers in Mumbai to managers in Madrid, women use AI less than men when analyzing data from 15 studies covering over 100,000 people, along with novel data measuring who visits the top Generative AI websites. Moreover, equalizing access does not appear to fully close the gap, even when presented with the chance to use Generative AI, women are less likely to use this new technology than men.
This disparity has the potential to be significant. As generative AI systems are still in their formative stages, the under-representation of women in their early use and testing risks shaping tools that fail to meet the needs of half the population (Koning, Samila, and Ferguson, 2021; Cao, Koning, and Nanda, 2023). Biases in user data—similar to those that have previously led to racial disparities in AI performance—could result in AI systems that reinforce gendered stereotypes and overlook tasks more often performed by women (Feldberg, 2022). Ensuring that AI tools are designed inclusively will be crucial for unlocking their full potential to enhance productivity and reduce inequality. Given recent estimates that AI has the potential to increase US economic output and worker productivity levels by nearly 20% over the next decade (Baily, Brynjolfsson, and Korinek, 2023), and that women make up just under 50% of the US workforce, a persistent 25% usage gap could result in hundreds-of-billions of dollars of lost productivity and output gains in the US alone.

Given the potential ramifications of this global AI gender gap, these findings also point to the need for policy and managerial efforts aimed at closing it. As our findings show, even when efforts to increase participation by equalizing access are in place, women are still less likely to use AI than men. This suggests that policy must go beyond simply equalizing access to AI but must wrestle with and address the social and behavioral barriers to AI use. The fact that we do not see a gap in the sample of tech employees suggests that more familiarity with technology may close the gap, but more research is needed into why women may chafe at AI usage. Without such efforts, AI's potential to drive economic growth and improve productivity will disproportionately benefit male users, not only entrenching existing gender gaps, but also opening the possibility that society will miss out on the work, inventions, and ideas women would have produced with this new technology.

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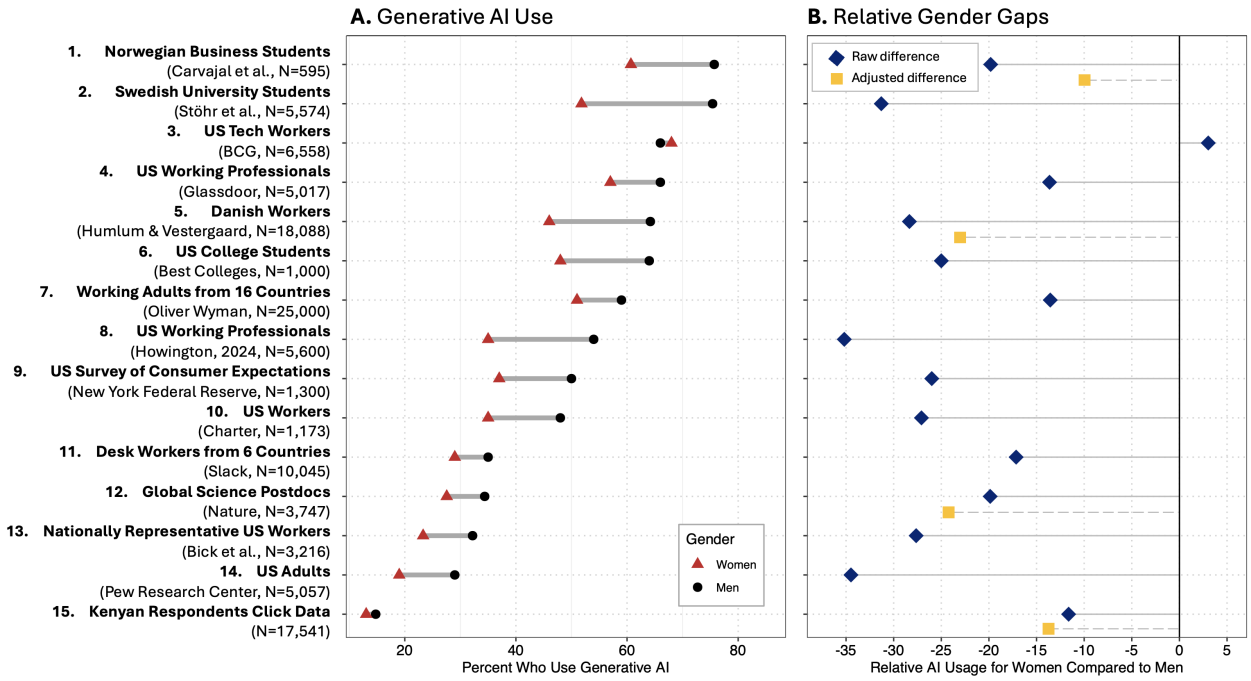
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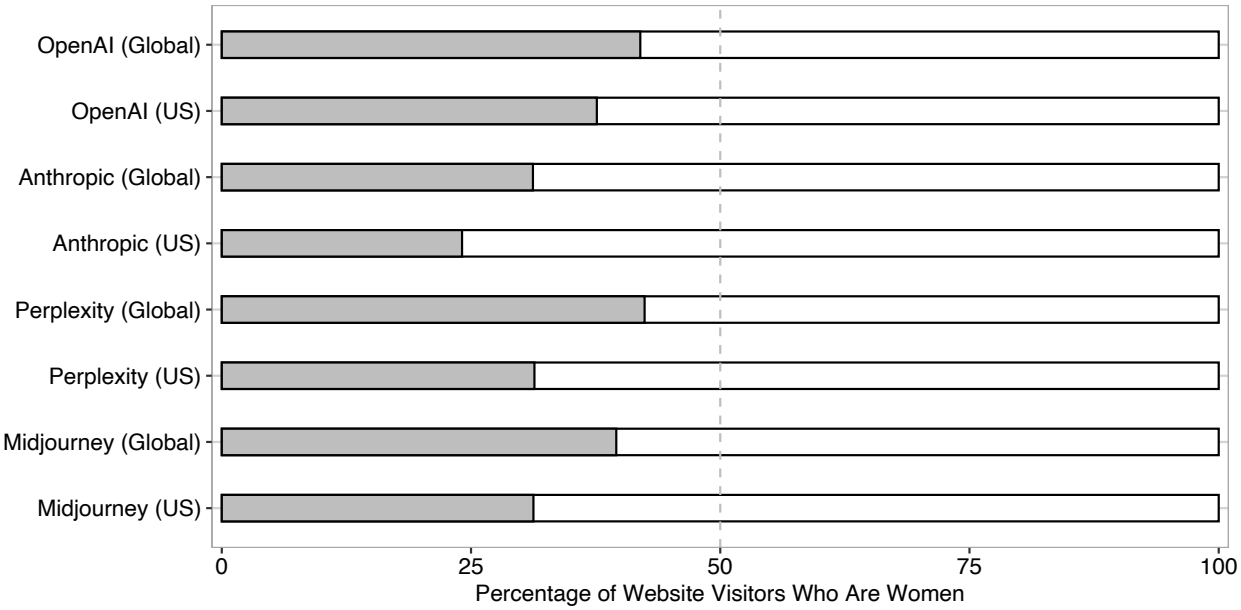
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Figure 1: Generative AI Usage by Gender Across Studies



Panel A presents generative AI use and adoption by gender across 15 data sets (See Appendix A for additional information on data and definitions of generative AI use). Red triangles represent the percentage of women who use AI, and black circles represent the percentage of men using AI. The gray bar between each point represents the gender gap in AI use. Estimates are ordered by overall AI usage in each study. N refers to the total number of respondents for which we have data from each respective source. Panel B represents the relative percent difference in AI use, calculated as $\big(\Delta_{p(\text{women})-p(\text{men})}\big)/\big(p(\text{men})\big)$, where for blue diamonds $\Delta_{p(\text{women})-p(\text{men})}$ is the raw difference in AI use, and for yellow squares it reflects the covariate-adjusted difference when such data are available (Appendix B).

Figure 2: Percentage of Generative AI Website Visitors Who Are Women



This figure presents the estimated percentage of total unique users that are predicted by Similarweb to be women for three widely used AI platforms measured using website traffic data collected by Similarweb. The data is the average from November 2022 through May 2024, the lifetime of ChatGPT, the most popular and first widely-used generative AI tool. The predicted monthly average number of unique website visitors from each platform is as follows: OpenAI (Global): 172.9 million users, OpenAI (US): 18.01 million users, Perplexity (Global): 7.13 million users, Perplexity (US): 0.773 million users, Anthropic (Global): 1.888 million users, Anthropic (US): 0.281 million users, Midjourney (Global): 10.04 million users, Midjourney (US): 1.304 million users. See Appendix A and for additional information.

Online Appendix

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A Overview of Data

To identify datasets, we conducted a comprehensive search on Google Scholar in July of 2024, including all studies from any geography either unpublished or published, as long as they measured (1) AI use and (2) the respondent's gender. We were able to identify 14 such surveys. Our assembled data includes samples from 26 countries: Argentina, Australia, Brazil, Canada, Chile, China (Hong Kong), Denmark, Egypt, France, Germany, India, Indonesia, Italy, Japan, Kenya, Mexico, Morocco, Norway, Pakistan, Saudi Arabia, Singapore, Spain, Sweden, the U.K., the United Arab Emirates, and United States. An overview of the different data is provided below:

Summary of Datasets in Figure 1

1. Aldasoro et al. (2024) conducted a survey with 1,300 U.S. household heads in February 2024 through the New York Federal Reserve's Consumer Expectations Panel. The study explored whether participants had used generative AI tools in the past 12 months.

2. Barisano et al. (2024) conducted a survey in January 2024 with 6,558 tech workers from India, the U.S., Japan, the U.K., and Germany. It assessed AI adoption across various functions and seniority levels, focusing on whether participants used generative AI tools at least once a week. The survey found that senior women in technical roles used AI more than their male counterparts, though junior-level women had lower adoption rates than men in both technical and non-technical roles.

3. Bick, Blandin, and Deming (2024) surveyed a representative sample of 990 U.S. adults in June and August 2024 to determine whether they had used generative AI tools in the last week.

4. Carvajal, Franco, and Isaksson (2024) surveyed 595 bachelor's and master's students at a Norwegian business school between November 2023 and early 2024. The study measured the frequency of generative AI use, categorizing respondents as low or high users.

5. Glassdoor Economic Research (2024) conducted a survey with 5,017 U.S. professionals in November 2023 to explore the extent to which respondents used AI tools to assist with their work tasks.

6. Goligoski and Clemente (2024) surveyed 1,173 U.S. workers across manufacturing, service, and knowledge sectors in August 2023. This survey focused on whether participants were currently using generative AI tools in their jobs.

7. Howington (2024) conducted a survey in May 2023 with 5,600 U.S. professionals across various careers and education levels. The study investigated whether participants used AI tools in their personal or professional lives.

8. Humlum and Vestergaard (2024) conducted a survey with 18,088 workers from 11 occupations in Denmark between November 2023 and January 2024, focusing on whether respondents reported using ChatGPT.

9. Kenya AI Adoption Study (KAAS) surveyed 17,541 Kenyan participants between August and October 2023. The participants were recruited via Meta ads, and the study tracked their engagement with ChatGPT by recording whether they clicked on a link to download or access the tool. For more details, see Section A.

   Would you like to download ChatGPT or learn how to access GPT on your browser? with response options {No (I do NOT want to learn how to download ChatGPT or access it on my browser), Yes (I DO want to learn how to download ChatGPT or access it on my browser)}

   If they answered "Yes," they were shown the following two statements: "Downloading ChatGPT: Click here to view a guide to download ChatGPT." and "Using ChatGPT on your browser: Click here to learn how to use ChatGPT in a browser." The survey allowed us to track whether or not a participant clicked on one of these two buttons. The outcome was coded as 1 if the user clicked either link, and "0" otherwise.

10. Kreacic and Stone (2024) surveyed 25,000 adults aged 18-65 across 16 countries—including the U.S., Canada, Mexico, Brazil, the U.K., France, Italy, Germany, Spain, China, India, Indonesia, Singapore, the UAE, and Australia—between June and November 2023. The survey focused on whether participants used generative AI tools at least once a week.

11. Nam (2024) surveyed 1,000 U.S. undergraduate and graduate students enrolled in various programs during September and October 2023. The survey assessed whether students had used AI tools.

12. Park and Gelles-Watnick (2023) surveyed 5,057 U.S. adults through the PEW Research Center's American Trends Panel in July 2023. It examined whether participants who had heard of ChatGPT had ever used it.

13. Nature Research (2023) surveyed 3,621 postdoctoral researchers (after excluding 217 respondents who either did not list their gender as Male or Female, who did not respond to the survey question on generative AI, or who responded that they were "unsure" whether they had used generative AI) across various disciplines and regions globally in September 2023. This study assessed whether participants reported using AI chatbots in their academic work.

14. Slack (2024) conducted a survey in March 2024 with 10,045 desk workers across six countries: the U.S., Australia, France, Germany, Japan, and the U.K. The survey focused on employees who work with data, analyze information, or think creatively, as well as those in executive, senior, middle, or junior management roles. It examined whether these respondents had ever tried using AI tools in their work.

15. Stohr, Ou, and Malmström (2024) surveyed 5,574 students from 28 Swedish universities in April 2023 to determine whether they had ever used ChatGPT.

Similarweb

Similarweb is a data aggregation market analysis platform that provides estimates for website traffic and user demographics, as well as other website performance metrics such as total page visits, new vs returning users, and time spent on site. Similarweb's data is updated monthly. Other firms such as Airbnb, Walmart, Adidas, and J.P. Morgan use Similarweb to benchmark performance and for lead generation. See Cao, Koning, and Nanda (2023) for additional discussion and validation of the Similarweb data.

We use Similarweb to determine the number of unique website visitors to four popular GenAI websites. We also use their predicted gender estimate of unique visitors to understand the ratio of women vs men that use these tools.

How does Similarweb predict the gender of website visitors? According to their website, "Similarweb has access to hundreds of thousands of internal analytics accounts that provide us with their demographic information (age and gender). Similarweb also has the largest and most diverse contributor network in the industry. Combining these data sources enables us to build audience profiles and map out the web by seeing the digital journey of hundreds of millions of users" (see https://support.similarweb.com/hc/en-us/articles/115005835169-Website-Demographics#:~:text=How%20does%20Similarweb%20collect%20website,information%20(age%20and%20gender)).

Kenya AI Adoption Study (KAAS)

This section provides an overview of the data collection procedures for the Kenya AI Adoption Study (KAAS). In this study, Kenyan survey respondents were recruited through an online advertisement run on the Meta ad platform. This project was approved by the UC Berkeley Office for the Protection of Human Services and has not been reported on elsewhere. The ad targeting was restricted to individuals from Kenya, and no additional geographical targeting was applied. In total, 17,541 Kenyan participants clicked on the link and completed the survey. As compensation for participating in the survey, individuals were sent a payment of 30 Kenyan Shillings.

The survey began by collecting basic demographic information on respondents. Individuals who completed the survey were on average 23 years old, had at least some college education, and were 73.9% male. This gender difference in survey response rates likely stems from the fact that the Meta platform runs an auction determining who to show advertisements to. Because there is greater demand for female "eyeballs," ads are shown disproportionately to men unless the ads explicitly

target a particular group, which this ad did not (Lambrecht and Tucker, 2019).

B Methodology: Adjusted Gender Gaps

Here we describe the method used to calculate the covariate-adjusted gender gaps shown in Panel B of Figure 1. The unadjusted gender gap represents the percentage point (pp) difference in AI adoption rates between male and female users, while the adjusted gap accounts for this difference after controlling for covariates.

In a new analysis of data from Nature Research (2023), the unadjusted gender gap was 7.4pp (p<0.001), which increased to 8.4pp (p<0.001) after adjusting for age, field of study, and location. In related work, Van Noorden and Perkel (2023) provide data on a survey of scientists by *Nature*. The unadjusted gender gap is 5.4% (p=0.052), while the gender gap controlling for career stage, field, and location is 7.0% (p<0.05). Similarly, data from the Kenya AI Adoption Study (KAAS) found a 1.7pp unadjusted gap (p<0.01), which grew to 1.8pp (p<0.01) after controlling for age and education. Likewise, in new analysis of data from a survey targeting higher education students Ravšelj et al. (2024), we report a gender gap of 10.1% (p<0.001), and gap of 9.3% (p<0.001) after controlling for level of study, and field of study.

In contrast, findings from Carvajal, Franco, and Isaksson (2024) reported a 15.0pp unadjusted gap (p<0.001), but the adjusted gap fell to 7.5pp (p<0.05) when accounting for variables such as year in college, admission year, and preferences around risk and time. New analysis of data on use of AI among microbusnesses from (GoDaddy, 2024) finds a gender gap of 6.6pp (p<0.001) which falls to 4.3pp (p<0.001) after controlling for country, business type, and number of businesses owned.

Lastly, Humlum and Vestergaard (2024) reported the largest unadjusted gap at 21.9pp (p<0.001), which decreased to 15.0pp (p<0.001) after adjusting for occupation, task importance, workplace context, beliefs, and uncertainty. Notably, the unadjusted gap in this study already controls for variables like age, experience, log(earnings), and net wealth/earnings, offering a nuanced view of gender disparities.

These studies show that even after controlling for key demographic, professional, and contextual factors, a considerable gender gap still remains.

C Methodology: Meta-analysis

We conducted a meta-analysis using nine studies with available data:

Nature Research (2023); Howington (2024); Barisano et al. (2024); Humlum and Vestergaard (2024); Glassdoor Economic Research (2024); Stohr, Ou, and Malmström (2024); Carvajal, Franco, and Isaksson (2024); Bick, Blandin, and Deming (2024) and the Kenya AI Adoption Survey (KAAS). A random-effects meta-analysis model was employed to assess gender differences in AI usage. This model accounts for variability between studies, such as differing sample populations, by allowing the true effect size to vary, providing a weighted average of effect sizes, and giving more weight to larger studies while incorporating variability from smaller ones. The random-effects odds ratio model shows a gender gap in AI usage, with a combined odds ratio of 0.76 (95% CI = [0.67, 0.87], $p < 0.0001$), indicating that women are 24% less likely to use AI than men across the analyzed studies.

D Methodology: Mechanisms

This section provides an overview of the methodology used to analyze the mechanisms underlying gender gaps in AI adoption. We identified mechanism results using the following procedure. First, within each of the papers in our data set only searched for mechanism questions that directly asked about artificial intelligence. For example, we did not look at gender differences in risk preferences, but we included gender differences in risk preferences if they were explicitly related to AI adoption. This was to ensure that the mechanisms were closely tied to the focus of this paper, which is gender differences in AI adoption. We then had a research assistant classify each mechanism into a topic or theme that summarized its focus.

Below, we report the survey questions used by the studies. When reported by the authors, the actual question text is provided. Otherwise, we report a summary of whatever information on these mechanisms was provided by the authors. We also note whether a given friction was more prevalent among women, in men, or whether no gap was reported. We classify a gender gap as occurring for a given mechanism if the authors report a significant gap for that mechanism ($p < 0.05$), or in some cases, if they report a gap but do not note the level of significance (e.g., see Barisano et al. (2024)).

Paper: Aldasoro et al. (2024)

AI Training/Knowledge - Friction is more common among women

- How much do you know about artificial intelligence tools (such as ChatGPT, Google Bard, DALL-E, . . .)?

Expected Benefits/Impact of AI Use - Friction is more common among women

- What do you think are the chances that artificial intelligence will help you find new job opportunities?

- What do you think are the chances that artificial intelligence will increase your productivity at work?

Trust in AI - Friction is more common among women

- In the following areas, would you trust artificial intelligence (AI) tools less or more than traditional human-operated services?
- How much do you trust the following entities to safely store your personal data when they use artificial intelligence tools?

Expected Risks Associated with AI Use - No gender difference in frictions is reported

- What do you think are the chances that you will lose your current job because of artificial intelligence tools?
- What do you think are the chances that your salary in your current job will decrease because of artificial intelligence tools?

Paper: Carvajal, Franco, and Isaksson (2024)

Believe AI is Cheating/Sensitivity to Bans - Friction is more common among women

- Using ChatGPT as an aid to solve assignments in a course is equivalent to cheating.
- Using ChatGPT as a learning aid in a course is equivalent to cheating.
- It is easy for professors to identify if a student has used ChatGPT (the authors report this difference is significant only at the $p < 0.10$ level).

Confidence - Friction is more common among women

- How confident do you feel that the query you just provided will make ChatGPT get the information you need?

Trust - No gender difference in frictions is reported

- How confident do you feel that the query you just provided will make ChatGPT get the information you need?

Usefulness - Friction is more common among women for questions marked with a "*"

What do you believe are the main advantages of using ChatGPT in coursework? - Improves my grade in the course *

- Increases accuracy or quality *
- Improves learning of course methods *
- Saves time *
- I do not see any advantages
- Other

Preferences - Friction is more common among women for questions marked with a "*"

- If ChatGPT does not provide the desired answer on your first attempt, how many additional attempts do you typically make?*
- I think ChatGPT is enjoyable to use*
- I think ChatGPT is difficult to use (reverse coded)

Exposure/Experience - Friction is more common among women for questions marked with a "*"

- indicate the percentage of people you believe use ChatGPT {friends, students in their course, professors at NHH}
- Have you ever received inaccurate or misleading information from ChatGPT?*

Paper: Stohr, Ou, and Malmström (2024)

Expected Benefits/Impact of AI Use - Friction is more common among women

- Do you agree or disagree with the following statements about AI chatbots in general?
- The chatbots I use make me more effective as a learner.
- The chatbots I use improve my study grades.
- Chatbots generate better results than I can produce on my own.
- The chatbots I use improve my general language ability.

Expected Risks Associated with AI Use - Friction is more common among women

- I am concerned about how AI chatbots will impact students' learning in the future.

General Attitude Towards AI - Friction is more common among women

- Overall, I have a positive attitude towards the use of chatbots in education.

Believe AI is Cheating/Sensitivity to Bans - Friction is more common among women

- Using chatbots to complete assignments and exams is cheating.
- Using chatbots should be prohibited in educational settings.
- Using chatbots goes against the purpose of education.

Paper: Humlum and Vestergaard (2024)

AI Training/Knowledge - Friction is more common among women

- It would require training before I can benefit from ChatGPT.

Expected Benefits/Impact of AI Use - No gender difference in frictions is reported

- We will next ask for your assessment of whether ChatGPT can save time on various job tasks. Note: Your answers are important regardless of your knowledge of ChatGPT. If you are not familiar with ChatGPT, we ask you to give your best guess. You will later get the opportunity to indicate how certain you are in your evaluations.
- Productivity of ChatGPT [all tasks]: Think of a [journalist] with an average level of experience and expertise trying to complete a given task. The worker has access to ChatGPT, the internet, a computer with existing software, and other tools typically used to complete the task. Specify the following tasks according to the description below:
- Small or no time savings from ChatGPT
- Large time savings from ChatGPT
- We now ask you to assess how the potential time savings from ChatGPT relate to [journalists'] expertise in given job tasks. Expertise Complementarity of ChatGPT [all tasks]: Imagine two

[journalists] with average levels of experience and expertise but who differ in their expertise in a given task. Specify whether access to ChatGPT in the task yields smaller, similar, or larger time savings for the worker with greater expertise compared to the worker with less expertise in the task.

Expected Risks Associated with AI Use - No gender difference in frictions is reported

- I fear that ChatGPT will eventually make me redundant in my job.
- ChatGPT will reduce my joy of performing the task.
- I am concerned about how ChatGPT will handle my data confidentially.
- I am concerned about becoming dependent on ChatGPT in the task.

Believe AI is Cheating/Sensitivity to Bans - Friction is more common among men

- I am subject to restrictions on using ChatGPT in my job.

Paper: Barisano et al. (2024)

Note that Barisano et al. (2024) provides mixed evidence on mechanisms across levels of employee seniority. See Figure 2 of Barisano et al. (2024) for details. Also note that the the actual survey measures were not reported in this study.

AI Training/Knowledge

- "Feelings of competence in using GenAI tools"

Expected Benefits/Impact of AI Use

- Awareness of GenAI's criticality to future job success

Trust in AI

- "Trust that GenAI tools would accomplish their objectives"

Expected Risks Associated with AI Use

- Risk tolerance for using GenAI prior to having a company policy

Lack of Confidence

- Confidence in GenAI skills

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