AI at Work:
# What Executive Leaders Need to Know and Do

Introduction

Companies, organizations, and state governments are racing to implement AI tools to make their work easier, cheaper, and more efficient. Teams and individuals are, at times, using AI in ways not authorized or even known by the company. As investors and customers continue to pressure companies to adopt AI tools, executive leaders must understand what these tools can do, how they work, their risks, and their issues.

It is not always clear that AI has a positive impact on profits or productivity. In fact, in August 2024 *The Economist* reported that the Western firms driving the AI revolution observed a 10% decrease in their share prices.[2] This report can help executive leaders make informed decisions about how to leverage artificial intelligence at work by providing critical information about what it is, its prospective benefits and challenges, and the necessary steps to take to develop AI literacy.

This report will also provide recommendations on how leaders can make thoughtful, analytical, and rewarding decisions around building, incorporating, exploring, or using AI products today and for the long-term. Using existing literature and interviews with a number of leading AI experts and practitioners, eight of whom are cited in the report and one expert who elected to remain anonymous, we examine the potential impact on both teams and individuals, including employees and customers. We also surface the issues that often get brushed aside by highlighting the risks and calling attention to how these risks can deepen existing systemic inequities in a global society. On the flip side, we describe how to mitigate risk and offer ways to strike a balance between the current and future potential of AI.
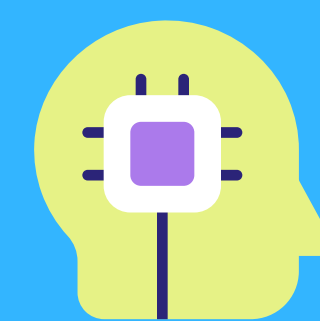
The Global Market

The global artificial intelligence (AI) market, which represents AI robotics, sensor technology, computer vision, machine learning, and natural language processing (NLP), is projected to reach $184 billion in 2024.[1] The market is expected to grow 30% year over year, reaching $830 billion in value by 2030. While overall investment in AI declined in 2023, investments in generative artificial intelligence have increased by 800% since 2022, reaching $25.2 billion.

AI at Work Today

Leaders often don't know why or how frequently their employees are using artificial intelligence. In 2023, the global research firm Gallup asked chief human resource officers (CHROs) how often their employees were using AI to do their jobs.[3] Forty-four percent said they did not know. Within the same year Gallup reported that seven in 10 employees never used AI in their jobs, while one in 10 reported using AI weekly or more often. Of the 10% of employees who reported using AI often, 40% used it to complete everyday tasks, 30% used it to learn new things, and about 20% used it to solve new problems.[4] When CHROs were asked *why* they wanted to adopt AI tools, their top five responses were:[5]

1. Increased efficiency
2. Increased effectiveness
3. Greater speed
4. Better decision-making
5. More opportunities for workers to focus on strategic thinking

When we interviewed leading AI experts and asked them to share how adopting AI tools impacts the workplace and society, many responded, "Well, when you say 'AI,' what exactly do you mean?" Countless leaders across sectors are using one term to mean many different things. Some leaders are also taking time to study the technology and declaring that they will not adopt the use of any AI tools at scale across the organization. This stance can be confusing for some who wonder where the line on the use of AI at work begins and ends. Replicated intelligence (intelligence that is a copy of the intelligence of human beings) is not new. Six years ago, Google launched its Smart Compose feature, which uses predictive technology to finish sentences in email much like autocomplete in the search bar of a search engine.[6] Reportedly, more than 60% of mid-sized US businesses use Gmail for business purposes compared to an estimated 90% of startups.[7] In environments where a general use of AI is not allowed, how do leaders address the use of predictive technology across company-authorized third party applications?
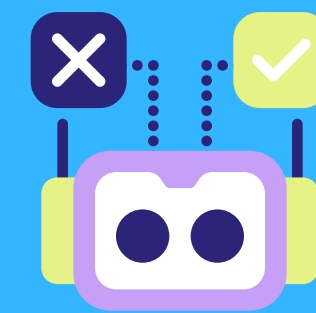
The Turing Test

So, what is artificial intelligence? In the 1950s, computer scientist Alan Turing asked, "Can machines think?" He developed the Turing test, also referred to as the imitation game, to identify if a machine could think on its own. Five years later, John McCarthy, a professor at Dartmouth, led a workshop to find out how machines could use language and concepts to solve problems typically solved by human beings. Nearly 70 years later, with billions of dollars invested in 2024 alone, leaders are being sold a vision of artificial intelligence that doesn't exist. Many experts cite that using the word "artificial" is misleading as the intelligence gathered through generative AI tools, for example, is taken from human writers across industries therefore it is not artificial, it's human.

Across mainstream media outlets, the use of the term "AI" often refers to generative AI (GenAI) or tools that produce replicated information based on specific prompts written by users. GenAI is described more accurately as machine learning, where models imitate how humans learn and compile new information while improving accuracy over time.

When executive leaders decide to adopt AI tools at work, they must also invest in defining a shared language. That begins with understanding what AI is and how it works. On page 22 in the appendix, you will find a list of terms that can be used as a starting point to test your own knowledge and ask yourself how employees understand and engage with these important terms.

What We Found

Before we discuss processes for considering the risks and ethics in adopting AI tools, let's consider what our experts shared about the ways AI and AI-enabled tools are being used at work today.

Artificial Intelligence tools being used at work has accelerated more quickly than legislation, which has generated considerable copyright issues for business owners, writers, and artists who share and write content on the internet. AI scrapers are rapidly becoming a threat that executive leaders are weary of, as they have the power to scrape large platforms and websites for information and use that information to bundle tools without compensation or consent from original creators and writers.

A Real-World Example
In July of this year, economist George Hammond reported in Financial Times that the AI-startup Anthropic was being accused of "egregious" scraping of Freelancer.com, an online job marketplace that connects freelance workers with prospective clients.[8]

In the period of four hours, Freelancer.com reported receiving nearly 4 million visits from an Anthropic linked data scraper in just four hours. According to Hammond, visits from the scraper continued even after Freelancer.com rejected access requests and did not stop until traffic from Anthropic's internet addresses was blocked completely.[9]

Why It Matters
AI tools could be pulling data from copyrighted materials, which creates additional ethical, legal, and reputational risks for the companies adopting these tools. Information could also include other types of intellectual property such as trade secrets. Another concern is digital privacy, which travels in every direction.

For Some Founders, AI Bridges Intergenerational Divides and Talent Gaps

"It's just not the same sort of work ethic that I had when I got out of college. And we're just not finding great people who understand how to work or have the motivation or the hunger to do things the way they need to be done. Whereas AI doesn't let me down that way and has been great. It is a boost to the overall dearth of talent there is in the employee pool right now. So, in a way, AI in the workplace is coming back at the right time for people who can't hire this next generation."

— **Raina Kumra**, *tech entrepreneur, impact investor and advisor, and data ethics advocate.*

Some founders view artificial intelligence as the answer to intergenerational divides and talent gaps.

A Real-World Example
Millennials and Gen-Z currently make up 59% of the U.S knowledge workforce.[10] According to a 2023 report by Gensler, younger generations work differently than their peers who entered the workplace before them. The report shows that Gen-X, Millennials, and Gen-Z spend triple the amount of time learning and socializing than Baby Boomers do, with Baby Boomers spending more time working alone.[11] It is not uncommon to observe generational differences in how people approach and position work in their lives.

After all, as society changes and as our collective understanding of humanity, identity, power, and future evolves, so too does our relationship to work. The same can be said of differences observed in how people think about and engage with new technology. According to Deloitte's 2024 Gen-Z and Millennial Report, 58% of Gen-Z workers believe that generative AI will free up their time and improve their work-life balance in comparison to 55% of Millennials. Fifty-nine percent of Gen-Z workers believe that GenAI will make them look for jobs that are automation proof, compared to 52% of Millennial workers, and 59% of Gen-Z workers believe that GenAI will cause the elimination of jobs compared to 59% of Millennials.[12]

Why It Matters

During the pandemic, interpersonal tensions across for profit corporations and nonprofit organizations erupted, in part, due to intergenerational differences about how organizations should respond to global calls for solidarity with Black liberation movements and disagreements about flexible remote work policies for those who could work from home. Intergenerational tension is a recurring phenomenon that requires that organizations consider the unique needs of workers and leaders across generations, especially when related to the adoption of new AI technologies.

AI Supports Individual Brainstorming And Text Development, But It Is Not A One Stop Shop.

During an interview, an executive at a large technology company working on AI policies told us:

"The two big categories that I'm seeing AI being used are as an assistant for brainstorming. For example, [they may decide], 'I need to come up with a product name, or a feature name, or I need a bunch of a list of synonyms in the style of x,' whatever x is. And so it's a creative thought starter, filling out thinking around naming and other text-based work. I'm also seeing people use it to polish, edit, and fix grammar in various communications, like websites and emails. I've seen a lot of people say, 'I'm creating all these customized sales email templates, using AI. I also made my website with AI.' It's not a one stop shop, it's very much a collaborative process where AI is either extending a list of ideas with additional possible ideas, or taking something as a starting point and editing it, which you then probably go in and edit further from there."

Real-World Example

Across elementary schools, high schools, and throughout higher education, there has been an increase in teachers cracking down on the use of AI through the use of AI detection writing tools. The increase of AI being used to develop text across both academic and professional spectrums has also meant an increase in students being accused of using it. Academic institutions have a wide variety of perspectives on whether AI tools are acceptable within a learning environment. Some believe generative AI tools should be banned and/or grounds for suspension, or expulsion.

Systemic Injustice

In a society born out of a legacy of inequity and white supremacy culture, inequities will be embedded into new technologies. Meaning, if a technology can be used to perpetuate systemic injustice, it will be. In 1970, US feminist Jo Freeman coined the phrase "the tyranny of structurelessness." to describe feminist movements and how a lack of structure within them would often lead to harmful and disruptive behavior. When we do not acknowledge power imbalances in a structured and thoughtful way, we perpetuate them.

Why It Matters

If students are being given mixed messages about using AI in school, employees are likely confused about how to use it at work, and the punishment for using AI will likely continue to be uneven and unfair.

Instructing or allowing employees to use AI without clear policy or regulation may not only lead to uses of the tools that can damage the organization, but may also make the workplace less safe for people who are often excluded and marginalized in society and at work based on race, gender, sexual orientation, disability, and other identities. Examples of this harm are the false and often racialized accusations of using AI as a replacement for one's own labor or intellectual skill. If workers have a clear policy defining the allowable uses of AI, it makes it more difficult for people in an organization to hide their pre-existing biases behind their perception of a technology usage violation. In addition, it facilitates understanding around the efficacy of the use of AI tools.

Artificial intelligence is just that: artificial. It is a form of intelligence replicated from human beings. Executive leaders would do well to establish fact-checking measures that rely on people to assess outputs from technologies to ensure they are accurate and correct. These measures could potentially minimize the organizational harm caused by hallucinations (i.e. answers to prompts or tasks that generate made up information) and overreliance on a tool that requires human collaboration to work most effectively.

Risks of Using AI

We've explained how AI is clearly and increasingly becoming part of our work through the products and services we use in our workplaces. Sometimes, though, the risks of AI are not clearly visible or understood.

There are many risks company leaders should consider to prevent problems and harm, and to make decisions about when and how much risk to take.

These risks range from litigation and regulatory uncertainty to biases in data and products or long-term harms to workers and the environment.

Risk: Litigation And Regulatory Risk

Using AI brings with it legal risks as companies sue AI companies for using their data. In July of this year, Meta launched the Meta External Agent to crawl the internet and collect data for its AI model. In August 2024, a Meta spokesperson defended collecting information for its AI model and pushed the burden to other companies to protect their data:

"Like other companies, we train our generative AI models on content that is publicly available online. We recently updated our guidance regarding the best way for publishers to exclude their domains from being crawled by Meta's AI-related crawlers." [13]

Scraping the internet for publicly available information developed by artists, writers, scientists, and anyone who has generated written or transcribed content online is highly contested by those who do not want their intellectual property replicated without consent and for a profit that is not shared with them.

This practice has also led to litigation over the protection of intellectual property, an individual's likeness, visuals, and writing style. In December of 2023, the New York Times sued Open AI and Microsoft for copyright infringement, alleging that the companies are using published work to train AI models without prior permission from the media conglomerate.

It became the first major U.S. media outlet to sue a popular AI platform over copyright infringement in a legal climate where a lack of critical regulation blurs the lines of copyright infringement and original content to the benefit of leading AI companies. [14]

In August of 2024, Open AI was sued by a YouTube creator, David Millette, after his videos were transcribed and used to train one of its AI tools. [15] According to Millette's complaint, the company used a speech recognition tool called Whisper to transcribe millions of videos to train its products. [16]

The litigation risk is exacerbated by regulatory uncertainty, which makes it unclear when you could be penalized for using certain types of AI or how you manage and share data. AI seems like the wild west with limited oversight and regulation, and many CEOs driving the industry are pushing to keep it that way. Attempts in 2024 to place controls and boundaries on activities have been uneven, making future regulation more unclear. The EU passed its AI Act that legislates requirements by risk level and includes prohibitions on certain types of AI.[17] Around the same time, California's Governor Gavin Newsome vetoed a bill that would have added safety requirements and protective measures for large-scale AI models while approving another requiring transparency in generative AI.

Why It Matters
If students are being given mixed messages about using AI in school, employees are likely confused about how to use it at work, and the punishment for using AI will likely continue to be uneven and unfair.

Risk: Data Privacy Issues And Surveillance.

One big risk that companies face with AI is privacy concerns around data collected or extrapolated from employees and customers. Harvard Business School Professor emirata Shoshona Zuboff first highlighted these risks in her 2019 book, "The Age of Surveillance Capitalism." Apple, the world's largest company,[18] took a stance on privacy protection in 2011, after the company was criticized for collecting the location data of its iPhone users. AI raises the specific concerns around what data is being collected and how it is being used. Often employees or customers may not understand how much data is being collected and stored indefinitely, and that the information could be sold or otherwise used in ways they did not anticipate or explicitly consent to.

> **"The core business model is surveillance"**
>
> **– Dr. Avriel Epps,**
> *Computational Social Scientist, Scholar, and Strategist*

Dr. Tamara Nopper, Sociologist, Writer, Editor, and Data Artist, described two specific situations where data privacy is an often unaddressed issue.

First, companies and employees often have limited insight into the privacy risks that come from using company approved wellness apps. Many companies are rolling out these programs for employees with a focus on improving physical and mental health. Dr. Nopper described the breadth of the changes and the risks.

"A lot of worker benefits are actually not required by law. There's this expansion of more and more 'benefits' to workers. And this is where [AI-enabled] employee wellness programs and employee assistance programs [come in]. This is where people are being supported, through everything from grief support to mental health support."

> **"It doesn't seem like the privacy issues are being made explicitly clear to workers. If you go on the company's websites [they] do have a term of service, and they'll say something about privacy. But there's really not a strong data privacy culture in the country. And there's no federal data privacy law....it tends to be a state by state issue, but it's not that strong. And so when you ask about regulations, just even on the physical mental health side, there's not a lot."**
>
> **– Dr. Tamara Nopper,**
> *Sociologist, Writer, Educator*

The second example is financial applications. Some companies provide access to tools that allow employees to set financial goals. Dr. Tamara Nopper explains:

"People have said these apps are more insidious than a payday lender.... If you look at the way the apps work, it doesn't have the same feeling of going to a brick-and-mortar payday lender. You're taking out small amounts. But you're also getting nudged sometimes. Sometimes these apps are connected, like budgeting tools—they're also monitoring your spending, they might nudge you. We see your patterns, right? There's been [questions] about where [this data goes]? And how is it being used to sell you stuff, or to encourage you to use the banking [feature] and take out more loans?"

Who is harmed is another consideration. As Dr. Tamara Nopper says in the two examples above, the more precarious workers are, the more likely they are to be invited to use tools and data collecting apps that put their privacy at risk. And when you consider the harmful side of generative AI, harassment is disproportionately experienced by women and especially women of color.[19]

Risk: Does The Product Work?

Dr. Timnit Gebru, founder and executive director of the Distributed Artificial Intelligence Research Institute (DAIR) where her research focuses on community-rooted AI systems, shared an example of how AI-enabled emotional recognition has not lived up to its hype and is now considered a failed technology.[20] In 2019, MIT Review shared examples of how companies often describe themselves as AI-based but actually do not use AI at all.[21] Even if a product does work, its business model may not. A wave of startups is losing steam and shutting their doors as they seek business models for products that may be expensive to build and run.[22]

We have lived and relived many examples of free products that become part of our companies, then prices go up and wages go down. Investors are plowing billions of dollars into AI companies ($7.3B for Anthropic in a year, and $13.5B total into OpenAI),[23] and effectively subsidizing their growth and pricing.

> **"Organizations Like Open AI Are Not Providing Basic Things Like Version Control. I Don't Even Know What The Output Is Going To Be Next Week, Because They Can Just Change The Product Anytime, And I Can't Revert Back To The Old Version. I'm Building Something On A Foundation That Is Not Consistent, So If There's Some Sort Of Issue, I Might Not Even Be Able To Reproduce It And Prevent It Later."**
>
> **– Dr. Timnit Gebru,**
> *Founder and executive director of the Distributed Artificial Intelligence Research Institute (DAIR)*

To understand the additional concerns that come with the use of generative AI, **Dr. Tamara Kneese**, senior researcher and project director of the Algorithmic Impact Methods Lab at Data & Society, a nonprofit that studies the social implications of data, automation, and AI, suggests we work to:

> **"Understand what generative AI actually is and what its technical limitations are. It is a tool with liability and reputational risk."**
>
> **– Dr. Tamara Kneese,**
> *Senior Researcher and Project Director of the Algorithmic Impact Methods Lab at Data & Society*

Why It Matters
Generative AI and its known issues of hallucinations can have long and broad negative impacts. Once discovered, an additional harmful side effect of hallucinations and wrong information can be a loss of trust. Users, whether employees or customers, may find it harder to trust the product that created the wrong information, and perhaps extend that distrust to AI, in general, or your company more broadly.

Questions to Answer
As a few companies build up their monopolistic power, how will that affect pricing and control over your data? If you build your product on top of an AI system, are you able to rebuild it in the future or do you get locked into that product? Are you building your own secure data store with privacy protections to be able to make it easier to switch to another provider? Have you tested the product to make sure it actually works? Have you asked about the security and who internally has access to the data?

Risk: Worker Displacement Issues

As in any business calculus, we need to understand the potential harms and costs of our actions. For AI, one big cost is the exploitation of workers through the appropriation of creative products and other work for building AI products, services, and data sets. It's one that raises ethical issues, especially for a new generation of purpose-driven employees.[24] The data AI uses often incorporates the creative work of people who are not compensated or given credit for their contributions and often are not aware of their works being used to generate AI. Sometimes the data sets include personal data. Authors of 183,000 books in a database used by Meta, Bloomberg, and others to train AI have not been notified that their work is being used for this purpose.[25] Authors who found out later have sued the AI companies to protect their work.[26]

> **"We're starting a project with the Model Alliance. They represent fashion models, who are essentially independent contractors with very few protections. They are very vulnerable to what talent managers say, including when they are asked for a full body scan. Once companies have their body scans, then is there a need for the model? We're starting to see scans being used to produce artificially generated models. In New York, an AI fashion show only used AI models."**
>
> **– Aiha Nguyen,**
> *Head of the Labor Futures Initiative at Data & Society, which is focused on understanding AI's disruptive impact on the labor force*

It is imperative that companies using AI know where their content is coming from. Without proper checks and balances, using content to generate text, images, and more could be a violation of copyright law. In 2023, during the first simultaneous strike in a 63-year period by both actors and writers, AI-related protections for workers were a critical issue.[27] Under the agreement, actors can now set a price for advertisers interested in digital replication of their voices with the caveats that 1) the replication of an actor's likeness equals the minimum SAG-AFTRA pay for audio commercials, and 2) companies lead with informed consent, requiring actors to explicitly approve each instance of use of their voice.[28] SAG-AFTRA also released a set of written and visual guidelines dictating what producers were and were not allowed to do in the replication of an actor's likeness.

Questions to answer: Do you know where the content is coming from? Do you know the sources of the data used to build the algorithms provided? What happens to all of the workers who are being displaced?

Authors are not the only creators whose work has been used to train AI. Dr. Gebru explains, "every single data set that has been made public for us by generative AI systems has scraped content from YouTube or similar platforms without artists' knowledge or compensation or whatever. And the only reason we haven't seen that with the companies like Google or Open AI is because they don't have to make any of the data public."

Entire industries could be disrupted. If you have all the measurements and enough video of an individual, do you need to hire models or actors anymore?

We often think of productivity as extracting maximum product from a fixed amount of worker time. Some companies have a goal of eliminating worker time altogether, as Uber describes replacing drivers with automated cars and Amazon pushes to replace workers with robots and drones.

Risk: Worker Exploitation

Workers are also exploited directly by AI companies as employees or contractors. DAIR is working to gather first-person accounts of "ghost workers" and "zombie trainers" who have been exploited in the creation of data sets and AI products and services; some are paid as little as $1.46 per hour after tax.[29]

> **"There are folks in the trust and safety space thinking about the use of AI in content moderation spaces… there are very small tasks where I've experienced decreased administrative or emotional labor, and connectivity cannot exist on the backs of breaking the brains and bodies of black and brown people around the world."**
>
> **– Anika Collier Navaroli,**
> *Writer and Lawyer*

The people harmed are more likely to be more precarious workers. They are more likely to be given AI tools, including ones that collect data about them without their consent or knowledge. An overview of research by the University of Illinois and the National Institute for Occupational Safety and Health showed how AI intended to protect workers can fail workers from marginalized groups, describing how "the role of AI is divergent. For example, AI used in factories and warehouses may use 'machine vision' to reduce the risk of robot–human collision; however these AI systems often fail to recognize darker skin tones, which increases injury and fatality risk for workers who are Black, Latine, Indigenous, Asian, and other People of Color.[30] They are also more likely to be exploited in data collection, moderation and creation.[31]

Questions to answer: What level of creator approach are you comfortable with when using AI products and building AI products? What are your values as a leader and your company's values when it comes to the exploitation of data workers?

Risk: Harm From AI Biases

Much research has been done to highlight biases built into data sets used to build the algorithms that generate results or new content presented in response to a prompt. The National Institute of Standards and Technology (NIST) recently described two types of bias: AI data based bias and societal bias.[32] Whether you are seeking answers to questions, renting a house, or seeking a loan, the decisions are usually determined by a preset formula. How those formulas are determined come from algorithms based on assumptions, calculated guesses, and patterns humans build from data they chose to use. Failures can come from false connections between algorithms and assumptions. One example is assuming people with more health care visits are more readily healed when access can be discriminatory against people from lower socioeconomic groups.[33]

AI tools and their biases raise questions of long-term fairness. Its ability and path to compiling concentrated power have been under Congressional scrutiny. The current tech executives are mostly white and male. They are able to design AI systems to process information according to their interests and priorities. They can decide who power goes to and design systems that prevent criticism of certain ideas and people. In many ways, they are able to use AI to make themselves into gods.

Questions to answer: What level of creator approach are you comfortable with when using AI products and building AI products? What are your values as a leader and your company's values when it comes to the exploitation of data workers?

Risk: AI And The Environment

One of the more popular marketing narratives for AI-enabled technologies is how they can be used to fight climate crises. There are specific tools used by climate scientists and government agencies to identify pollution violations and to better understand carbon emissions, however not all companies selling AI tools are focused on environmental protection.Sometimes, the marketing is focused on what tools could be used to do in the most altruistic or ideal scenario as opposed to what it actually does. In 2024 alone, the US experienced its fourth hottest summer in recorded human history.[34]

As one of the most quickly warming regions in the world, Sudan's temperatures are increasing at two and half times the global average.[35] Some parts of Sudan are experiencing unprecedented flooding while other parts of the country are experiencing unprecedented drought that has left over 60% of the population experiencing severe hunger.[36] These increases in global floods and droughts are an effect of anthropogenic (human-caused) greenhouse gas emissions. In August of 2024, the Hill reported that the current US presidential administration was paying farmers to stop growing food due to water shortages. Historic droughts in 11 states have led the Department of Agriculture to pay farmers $400 million to conserve water.[37]

But what does all of this have to do with AI? Running AI systems requires substantial computing power that runs on electricity and is cooled by water. The behemoth data centers that run the internet were already considerable consumers of electricity (often powered through the burning of fossil fuels). The chips running AI systems require even more energy because they sift through more extensive information in shorter periods of time. Last year, computer scientist Kate Saenko attempted to calculate AI's carbon footprint in the Scientific American.

She estimated:

"GPT-3, which has 175 billion parameters, consumed 1,287 megawatt hours of electricity and generated 552 tons of carbon dioxide, the equivalent of 123 gasoline-powered passenger vehicles driven for one year. That was just for getting the model ready to launch, before any consumers start using it."[38]

Determining exactly how much power is being used for a specific tool is made more difficult when there is little to no transparency from the companies building and selling these AI-enabled technologies.[39] The environmental impact of AI tools is not just about the generation and consumption of energy, but it is also about the consumption of water. Melody Petersen of the LA Times reported that ChatGPT uses two cups of water to answer as few as 10 prompts, and that AI companies are trying to conceal water and power use.[40] [41]

In a world where scientists estimate that water wars are not a distant fiction but a present reality, how we use tools that consume large amounts of non-renewable resources is important. For executive leaders considering the use of these technologies, it's important to consider the carbon footprint of specific tools prior to wide-scale adoption and to include environmental costs in a calculation of financial costs versus social and financial benefits. Considering environmental impact is also an important practice in intergenerational equity where decisions being made are not only made in the best interests of leaders and workers in the organization now, but also considers the needs and best interests of workers and leaders of the future.

Risk: Bridging Worker Perspectives

Workers who are part of your team or that you would like to join your company may have very different views on AI. Some workers are resistant to using AI at work for reasons that are becoming more widespread. People may care less about worker productivity and more about long term impacts, ethical impacts, and AI's impact on hiring, retention and sustainability of employees. Consider the following points:

1. Jobs are being devalued by company-wide AI adoption, and the new generation is less favorable to integrating the use of new AI tools because of worker exploitation.

2. AI is already having an impact on the environment, which is a growing concern of younger people entering the workforce. The servers that AI uses require large amounts of power to run and water to cool them down.

3. Younger generations can develop negative work experiences caused by being called out or punished arbitrarily for using AI when the rule banning AI usage is not clear or confuses existing and pre-authorized uses with newer uses.

Questions to answer: What level of creator approach are you comfortable with when using AI products and building AI products? What are your values as a leader and your company's values when it comes to the exploitation of data workers?

> **"Who decides whether someone has access to drinking water or if that water should be used to cool down chip manufacturing plants or AI farms?"**
>
> **– Anika Collier Navaroli**,
> *Writer and Lawyer*

As you look to hire new employees, are you going to be able to hire the best students? Do you have answers to concerns around AI usage and the worker perspective that address these concerns?
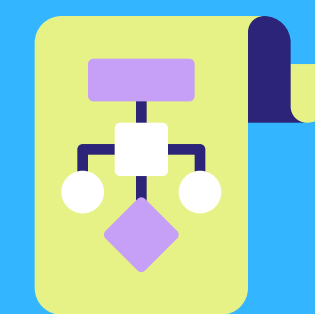
Students Say No To AI

One professor described how he asked his students to vote on whether the class should be required to use AI, decide individually if they would use it, or be banned from using it. Sixteen out of 17 students said they wanted a ban on AI while Dr. Casey Fiesler described how a colleague had to come up with a conscientious objector policy because students said they were ethically opposed to using AI because of how it was made.

Overall, the risk you are willing to take is a business and moral decision. Knowing all the factors and all the potential consequences, including externalized harms, is important in making an informed decision. Even if you are not making the calculation, your employees, hiring candidates, customers, and partners may be. Having a thoughtful plan and reasons for your choices will help you communicate and build trust with the people you work with and want to work with, and make better decisions for your business in the short and long term.

Recommendations

"Consider The Entire Supply Chain And Life Cycle Of AI Technology Instead Of Just Thinking About Implementation Or [The] Deployment Phase, And Think About The Data Workers Who Are Contributing To The Formation Of [These] Models."

- Dr. Tamara Kneese

Unsurprisingly, after talking with our experts, we found that the four key actions for a company are no different than what most companies already do in their day-to-day operations:

- Run a business analysis that makes the rationale and cost-benefit analysis clear.

- Lead a due diligence effort that examines existing research and data, and also shares technical proof about the outcomes

- Provide accessible and clear training for employees so they understand the risks and address them.

- Formalize your efforts by building policies and practices that reflect your goals and minimize your risks.

Below, we have compiled recommendations along with questions to answer to help executive leaders understand and manage the risks of adopting AI.

> **"Your opening question must be, 'Should this be AI?' And your second question should be, 'What could go wrong?'"**
>
> **– Dr. Casey Fiesler,**
> *Associate Professor of Information Science at University of Colorado Boulder*

> **"There has to be a cost-benefit analysis. What is the cost of it? The cost of implementing these systems so cheaply is that companies don't consider whether they will actually get a benefit from it."**
>
> **- Aiha Nguyen,**
> *Head of the Labor Futures Initiative at Data & Society, which is focused on understanding AI's disruptive impact on the labor force*

1. Proactively Invest Time To Understand The Rationale And Cost-Benefit Analysis
At the start, build from these key questions:

- Should this project use AI? What do we want it to do?

- What would we do if we don't decide to use AI?

- What could go wrong?

There is sometimes a feeling of falling behind by not adopting a new tool, which can lead to rushed decisions and unclear expectations and assumptions. Take the time to specify the usage, research the alternatives, and to calculate the business benefits. Gauge whether your employees are prepared for the changes needed to use the tool, and whether they value the tool and understand how to use it.

Once you address those questions, you can analyze the benefits of adopting these tools with the following questions:

- Does it help your workers do their jobs better?

- Does it save costs?

- Is it better than what we are already invested in?

- Where is the evidence and data that demonstrates the benefits?

- Does it raise concerns related to worker safety, data privacy, copyright infringement, or intellectual property?

- Is the budget planned for new AI tools put to better use in other parts of the company?

Look into what you would otherwise use the resources for if you were not spending it on AI. In this economy, investors and markets are looking closely at the bottom line: Increased spending should be scrutinized.

2. Understand Worker Perspectives

As AI adoption rapidly increases across for-profit companies and nonprofit institutions, executive leaders should ask questions to define realistic and achievable goals:

- Are our employees encouraged to use AI to improve performance?

- Are specific tools laying the groundwork for job displacement?

- Do employees and managers understand the uses, risks, and limitations of AI tools, and does the company have AI policies that will guide them and set shared expectations?

3. Understand The Product For The AI Provider

In the short term, AI can seem inexpensive to adopt and implement. Examining the product or service from the perspective of the company selling it can reveal a different set of costs.

- Why is this product being built? How does the provider benefit?

- What risks are there? What protections have been implemented? Can I ask for support from the technology provider to prevent the risks?

- Is our company's data being used by the AI provider to train AI models? If so, how is our organization's data being shared? Why and with whom? And how much money is the provider making from the data? Is the provider focused on its products or on selling your data longer term?

In many cases, companies place an unknown value on collecting data for further use and sale. Make an effort to understand how the data could be used and what methods of anonymization or aggregation are used to protect privacy. Additionally, you must understand how the data is being stored and what security protections prevent breaches.

For example, one potentially unforeseen risk of many health apps targeting employee use is that these apps are not subject to HIPAA requirements around health data privacy and security.

4. Understand The Costs Of Training Your Employees To Use AI And Be Transparent With Customers

If your employees do not understand how to use a new AI tool or do not value the tool, you will need to invest in teaching them how to use it and explaining why it's being used. You should explicitly review privacy and security risks of any products you are asking them to use that involve them sharing their personal information, and also offer alternatives or the ability to opt out. The same is true for your customers. If their data is going to be passed through to an AI company, they should understand how it could be used, how it is stored, and how they can access it or delete it, if possible.

5. Create A Risk Analysis That Considers The Provider And Their Business

You can better understand the risks of using the AI technology or service by analyzing the provider and their business model. Also, consider the ethical and moral aspects of the products you are using and the company behind the work.

- Why are they creating this product or service?

- Is reselling our individual, employees, or customers data part of their business model?

- How heavily is their pricing dependent on raising more funding?

- Are their contributors aware that their work is being used in the product and have they been compensated and credited? Do we know who was paid and how much for the work?

- Are we comfortable with the working conditions? If not, are we willing to use a specific tool that depends on worker exploitation to run?

- Are we willing to risk a PR issue if the companies we use are criticized for worker exploitation (e.g. the case with Apple and its Foxconn supplier in 2006)?

6. Test And Validate The Product
Run a real evaluation. While the cost of buying AI tools may be low, many companies are subsidizing their costs with high amounts of venture funding.

Test the product in-house to make sure it works. Build it together with your employees and provider, and customize it to your specific needs–including around data protection.

- Does the product test well within our company?
- Is it customizable to our needs now and long term?
- Does it address our needs and concerns around data privacy and security?

7. If You Can't Find The Answers, Pose Critical Questions Directly To The Provider
Many of these answers require much deeper due diligence. As you examine the provider's business model and try to understand the level of risk to your company, you may not get all of the answers you need on your own. Here are some helpful questions that you may need to ask providers, or yourself if you are building AI:

- Are you going to use our queries to train your model? Do you have technical proof or external validation of your answer–not just your word?
- Are you doing business in Europe, which has more government regulation of data and privacy?
- What are the privacy implications of using your AI product? Where is the data model stored and used? Is it on the processor on your hardware device or is it on the server? Are you sharing the data with any other companies or the government? How do we protect the data? How do we ensure that it is only used for purposes that the user intended? How do we make it clear and transparent what we are doing with the product and how we are doing it?
- How do we give users rights to edit and delete and all their data? Are you complying with and tracking privacy laws?
- What is the likely scenario of a data breach, and what is the worst case scenario? What are you doing to prevent a data breach? What is your protocol for addressing a data breach?

Test the product in-house to make sure it works. Build it together with your employees and provider, and customize it to your specific needs–including around data protection.

- Does the product test well within our company?
- Is it customizable to our needs now and long term?
- Does it address our needs and concerns around data privacy and security?

Next Steps: Training, Employee Involvement, and Transparency

Planning for AI can create exuberance or apprehension; taking thoughtful steps to plan can offset risks and prevent worst case scenarios while building real benefits for your business.

Once you have decided to move forward, build in training, involvement, and transparency for employees in order to create a better chance of success and avoiding risks and detecting potential problems early.

8. Train Employees And Managers
Training for employees has already started at some companies, though all companies using AI should train their teams. By working thoughtfully with employees, executive leaders have an opportunity to understand how legacies of power imbalance and inequity shape emerging technologies, including AI.

Executive leaders must better understand the reluctance of employees and partners to use new tools when they are given little to no knowledge as to why those tools are being used, how they will be used, and best practices for using them.

In addition, with existing digital literacy gaps present in our society, leaders can also benefit from conducting an anonymous digital literacy assessment and providing staff with educational opportunities that enable them to improve their digital literacy skills using the tools they already have access to. In this way, future adoption of new technologies can be built on a foundation of employees having the knowledge and skills necessary to make informed decisions about their use of new tools.

This can also be a way of halting the further perpetuation of existing systemic inequities that are designed to widen digital literacy gaps among Black, Latine, Indigenous, Asian, and other People of Color and historically marginalized groups.

9. Incorporate Employee Input

Processes, practices, and policies should incorporate input from workers. In particular, building tools should involve user experience (UX) researchers and other people talking to particular kinds of workers and particular communities.

10. Be Transparent About Data Policies And Expectations

Transparency is important. Make privacy issues explicitly clear to workers so they understand how their information is being used and what protections they have. Work to build in new or revised protections if you are not comfortable with the current ones. When sharing data, make explicit what data collection you are doing and put protections in contracts when you share data.

We also recommend that leaders set realistic expectations for how AI is adopted across a company or organization, and if it is both a helpful and necessary tool for every role represented within an organization.

Questions to Answer

How could the data collected be used against you or your employees or customers? How is the data being anonymized? Who has access to the data? Are you tracking who accessed what data and why?

Build it into your business explicitly

11. Design, Share, And Enforce AI Policies

Formalize your efforts by putting your practices into writing. AI practices should be clear, thoughtful, and communicated in an AI company policy. Managers should not be surprised that their employees are using AI already. Sharing a formal set of policies is part of helping to set expectations around its use and protections against the many risks of using AI and data to both the employees and the company. Your company's practices and policies should allow employees to use AI without feeling uncomfortable or afraid, but also hold them accountable for the content they produce and use, as well as ensuring they take steps to prevent risks and protect data.

12. Practice Informed Consent

Informed consent is another critical aspect of leveraging any and all AI tools in the workplace. Executive leaders should work alongside power-aware and equity-centered technologists to develop AI policies that offer employees, partners, and contractors consistent opportunities for informed consent.

A strong practice of informed consent includes providing a way for people to report concerns without being penalized. It should also acknowledge the discomfort many people have around using AI and allow for people to opt out of using newly adopted AI-enabled tools. To that end, employees should not feel pressured to participate in AI-based benefits. Remember when companies started encouraging physical activity by holding contests, based on who had the most exercise time or who took the most steps? These competitions put unnecessary pressure on employees who may have specific health reasons or work-life boundaries for not participating. Instead of pushing everyone to join, focus on the quality use of the products.

13. Regularly Check Costs, Benefits And Policies In Action

A strong policy also encourages consistent checks to ensure it is being followed. Audit early and often, and also check on the benefits and costs of AI projects. Test whether the expected gains and risks are as predicted or if course correction is needed. Provide incentives that make it a budgetary priority to do meaningful stakeholder engagement. For instance, make these evaluations part of an employee's annual bonus or performance review.

Once you gather this information, take the time to really optimize how you use AI. Gather the metrics and audit information and analyze it to understand which tools are working and which are not.

Questions to Answer

Are employees using the AI tools that the company provides? Are they reluctant to use them? Are they providing the results you calculated in your cost-benefit analysis? Are you testing the premise again now that the product is in use? Is it generating the cost savings and benefits that you modeled in the cost-benefit analysis?

Conclusion

When considering the adoption of AI-enabled tools in the workplace, there is a considerable amount of information to cover and be aware of. Before making any decisions about using AI for your company, create a cost-benefit analysis to define and evaluate the gains alongside the resource and reputational costs. Avoid making quick decisions without necessary reflection and input from stakeholders within and outside the organization.

With the use of any new tool, whether it be new to us or new to society, there is also possibility and potential. Some researchers and technologists are currently exploring how AI-enabled tools can be used to bring about futures that many of us, particularly those from the marginalized communities previously mentioned, have not had the chance of experiencing in our lifetimes or since entering workplaces.

Intergenerational equity in the environmental protection space, for example, describes the action of decision-making as one that should be based not only on the present but also on the types of experiences we want people to have access to long after we are gone.

> **"I started asking questions. Abolition is kind of two sided, right? So it's the dismantling or the abolishing of unjust power systems, but also it is the imagining, and the dreaming and the building up of new systems to replace those. And so that's where AI4Abolition was born. We can be an experimental place to start thinking about what technologies might support this abolitionist future, abolitionist imagination that, you know, folks like, adrienne [maree brown], Patrisse [Cullors], Angela [Davis], are writing about. Is there a place for technology in that, and that future that we want to live in?"**
>
> **– Dr. Avriel Epps**
> *Computational Social Scientist, Scholar, and Strategist*

Contributors

Authors
McKensie Mack
Ellen Pao

Editor
Tempestt Hazel

Graphic Designer
Scott Preavy

This research and report are funded and supported by MMG Earth.

Appendix

Biographies

Anika Collier Navaroli is an award-winning writer and lawyer. She writes, researches, and speaks about the role of journalism and law within social media, artificial intelligence, trust & safety, and technology policy. She is currently a Senior Fellow at Columbia Journalism School and The University of Florida. She previously held fellowships with the MacArthur Foundation in partnership with the OpEd Project, and at Stanford University where her first-of-its-kind research focused on understanding the distinct impacts of regulating online speech. Anika also previously worked as a senior policy official inside of Trust & Safety teams at Twitter and Twitch. Prior to her work within technology companies, Anika fought for systematic change in big data and internet freedom work by developing Color of Change's technology accountability portfolio and leading the first civil rights audit of a technology company. Anika also researched race and civil rights within emerging technologies and engaged in early debates about bias within artificial intelligence systems at Data & Society Research Institute. Anika holds a BS in journalism from the University of Florida, a MS from Columbia University Graduate School of Journalism, and a JD from the University of North Carolina School of Law.

Dr. Avriel Epps (she/they) is a computational social scientist, scholar, and strategist whose work bridges transformative justice and artificial intelligence. With a PhD from Harvard University, Dr. Epps' research delves into the intersection of technology, storytelling, and social equity, focusing on how biases in artificial intelligence impact the human beings that use it. With their work featured in major outlets like The New York Times, The Guardian, Vogue, The Atlantic, and more, Epps is committed to leveraging digital spaces to usher in a just and regenerative future.

Dr. Casey Fiesler is an Associate Professor of Information Science (and Computer Science by courtesy) at University of Colorado Boulder. She researches and teaches in the areas of technology ethics, internet law and policy, and online communities. Her work on research ethics for data science, ethics education in computing, and broadening participation in computing has been supported by the National Science Foundation, and she is the recipient of an NSF CAREER Award. Also a public scholar, she is a frequent commentator and speaker on topics of technology ethics and policy, and her research has been covered everywhere from The New York Times to Teen Vogue (though she's particularly proud of her TikToks). She holds a PhD in Human-Centered Computing and a a JD from Vanderbilt Law School.

Dr. Timnit Gebru is DAIR's founder and executive director. Prior to that she was fired by Google in December 2020 for raising issues of discrimination in the workplace, where she was serving as co-lead of the Ethical AI research team. Timnit also co-founded **Black in AI**, a nonprofit that works to increase the presence, inclusion, visibility and health of Black people in the field of AI, and is on the board of **AddisCoder**, a nonprofit dedicated to teaching algorithms and computer programming to Ethiopian and Jamaican highschool students, free of charge. She has received a number of accolades including being named one of **Nature's Ten people who helped shape science** and one of **TIME 100's most influential people.** She is currently writing The View from Somewhere, a memoir + manifesto arguing for a technological future that serves our communities instead of one that is used for surveillance, warfare, and the centralization of power by a few men in Silicon Valley.

Dr. Tamara Kneese is a senior researcher and project director of Data & Society's Algorithmic Impact Methods Lab. Before joining D&S, she was lead researcher at Green Software Foundation, director of developer engagement on the green software team at Intel, and assistant professor of media studies and director of gender and sexualities studies at the University of San Francisco. Her first book, **Death Glitch: How Techno-Solutionism Fails Us in This Life and Beyond**, was published by Yale University Press in August 2023. Dr. Kneese's research juxtaposes histories of computing and automation with ethnographies of platform labor. She's currently writing about AI's relationship to both labor rights and environmental impacts. Her work has been published in academic journals including Social Text and Social Media + Society and in popular outlets including LARB, The Verge, The Atlantic, and Logic Magazine. In her spare time, Tamara is an organizer with the Tech Workers Coalition. She holds a PhD from NYU's Department of Media, Culture, and Communication.

Aiha Nguyen leads the Labor Futures Initiative at Data & Society, which seeks to better understand emergent disruptions in the labor force as a result of data-centric technological development, and create new frames for understanding these disruptions through evidence-based research and collaboration with stakeholders. Aiha guides research and engagement, with a birds-eye view of the stakeholders and actors in the field of labor and technology. She brings a practitioner's perspective to Data & Society, having worked for over a decade in community and worker advocacy and organizing.

Raina Kumra is concurrently an early stage technology investor with **The Fund**, the founder of **Spicewell**, a functional foods company, and CEO of **Juggernaut**, a digital and organizational transformation bureau helping organizations be more human. Raina helped build the tech ethics portfolio at Omidyar Network, investing in alternative business models and ethical interventions for the technology industry. As a technology ethics advocate, she created the **EthicalOS framework** (which has been taught in universities the world over, and downloaded over 750,00 times) and an accompanying **course** on LinkedIn Learning to help makers, investors, and consumers get up to speed on data ethics and mitigate unintended consequences of new technologies. She currently serves as an Advisor to Google X, Alphabet's Moonshot Factory. She also helps a select group of climate and technology funds with their fundraising. She holds a B.S. in Film Production from Boston University, an M.A. in Interactive Telecommunications from NYU's ITP program & an M.Des.S. in Design Studies for Digital Applications in Urban Planning and Architecture from Harvard University. Her work has been published in several journals and is part of the MoMA permanent collection. She is a member of The Council on Foreign Relations.

Tamara K. Nopper is a sociologist, writer, educator, and editor. Her research, scholarly publications, popular pieces, and public educational lectures focus on wellness politics, financialization, credit scoring, the racial wealth gap, data literacy (particularly around crime data), policing and surveillance, Asian American communities, and Black-Asian solidarity politics. She is the editor of We Do This 'Til We Free Us: Abolitionist Organizing and Transforming Justice, a book of Mariame Kaba's writings and interviews (Haymarket Books), researcher and writer of several data stories for Colin Kaepernick's Abolition for the People series and edited book, and guest editor of the Critical Sociology forum "Race and Money." Tamara is an affiliate at Data & Society Research Institute as well as at the Center for Critical Race and Digital Studies. Previously, she was a senior researcher for the Labor Futures team and a race and technology faculty fellow at Data & Society, a fellow at Data for Progress, and a member of the inaugural cohort of the NYU Institute for Public Interest Technology.

Methodology

We interviewed ten subject matter experts representing various sectors across journalism, academia, executive leadership, sociology, technology, and transformative justice that are deeply impacted by the adoption of AI tools. Each interviewee was offered an honorarium for their time and the labor they extended during interviews. Interviewees were all based in the United States and opted to either be directly quoted or to have their quotes anonymized for use in this report.

Before the report was published, each interviewee was invited to review the quotes chosen and provide clarifying comments or reflections to ensure what was quoted aligned with their current perspectives. This invitation was extended in light of the rapidly evolving nature of AI adoption. Interviewees were primarily made up of experts who identify as Black, Indigenous, Latine, or People of Color (BIPOC) across various industries. In addition, when we refer to AI in this report, we are referring to new tools that are being promoted as new technologies that can solve problems in the workplace, improve efficiency, and productivity.

Shared Definitions

Coded Gaze: Dr. Joy Buolamwini, founder of the Algorithmic Justice League, AI bias expert, and artist coined the concept of the coded gaze. Buolamwini defines it as "a reflection of the priorities, preferences, and prejudices of those who have the power to shape technology".[42] The term describes what happens when algorithmic bias leads to systemic discrimination and identity-based exclusion. When we think about the many new and existing uses of artificial intelligence in our society it's important for us to consider both what AI can be used for in the present and the future, as well as how access to digital literacy has historically functioned in our society. In 2020, only four years ago, the National Skills Coalition found that one-third of U.S. workers lacked the skills necessary to use technology effectively.[43] Workers of Color were and continue to be disproportionately impacted by digital skills gaps due to pre-existing income and wealth gaps.

In 2020, 50% of Black workers lacked the skills necessary to use technology effectively and more than 50% of Latine workers lacked the skills necessary to use technology effectively. According to the National Skills Coalition, "this lack of skills has wide-ranging consequences, hampering workers' economic mobility and security while also holding back the productivity and economic competitiveness of the U.S. companies that employ them."[44]

Dataset: a collection of related data that is usually organized in a standardized format. Data sets are used for analytics, business intelligence, artificial intelligence (AI) model training, and a variety of other use cases. Data sets can vary significantly in both size and type of data. For example, a data set might contain information about tree species, ocean temperatures, regional sales totals, fruit prices, lottery winners, diseases, or just about any other type of data. (Tech Target)

Algorithm: a list of instructions used to solve problems or perform tasks based on the understanding of available alternatives. Algorithms are used to find the best possible way to solve a problem based on data storage, sorting and processing, and machine learning. In doing so, they improve the efficiency of a program. Algorithms are more than just programming; they are specifications for performing calculations, data processing, automated reasoning or decision-making. (International Institute in Geneva)

Artificial Intelligence (AI): a technology that allows computers and machines to simulate human intelligence and problem-solving tasks. The ideal characteristic of artificial intelligence is its ability to rationalize and take action to achieve a specific goal. AI research began in the 1950s and was used in the 1960s by the United States Department of Defense when it trained computers to mimic human reasoning. (Investopedia)

Machine learning (ML): a branch of artificial intelligence (AI) and computer science that focuses on using data and algorithms to enable AI to imitate the way that humans learn, gradually improving its accuracy. (IBM)

Natural language processing (NPL): falls under the fields of computer science, linguistics, and artificial intelligence. NLP deals with how computers understand, process, and manipulate human languages. It can involve things like interpreting the semantic meaning of language, translating between human languages, or recognizing patterns in human languages. It makes use of statistical methods, machine learning, neural networks, and text mining. (National Library of Medicine)

Computer vision: field of artificial intelligence in which programs attempt to identify objects represented in digitized images provided by cameras, thus enabling computers to "see." Much work has been done on using deep learning and neural networks to help computers process visual information. Computers can be given a large data set of visual images and If given a large data set of visual images, computers can identify features and patterns within those images that they can then apply to other images. Processes such as facial recognition and augmented reality rely on computer vision. (Encyclopedia Britannica)

Additional Resources

AI, Government, and The Public Sector

- [AI's Alarming Trend Toward Illiberalism](#)
- [Our government shouldn't use the public sector as a guinea pig for AI](#)
- [Dirty Data, Bad Predictions: How Civil Rights Violations Impact Police Data, Predictive Policing Systems, and Justice](#)
- [U.S. Department of Labor Artificial Intelligence And Worker Well-being: Principles And Best Practices For Developers And Employers](#)

Worker Voice in AI Tools

- [Artificial intelligence and algorithmic management in frontline service workplaces](#)
- [Worker Power and Voice in the AI Response](#)
- [OpenAI dissolves team focused on long-term AI risks, less than one year after announcing it](#)
- [Bringing Worker Voice Into Generative AI](#)
- [A Framework for Exploring the Consequences of AI-Mediated Enterprise Knowledge Access and Identifying Risks to Workers](#)
- [Bits in the Machine: A Time Capsule of Worker's Stories in the Age of Generative AI](#)

Responsible AI and Company Policy

- [Gen AI: Too Much Spend, Too Little Benefit?](#)
- [Podcast interview with Rumman Chowdhury: Developing a responsible use of AI policy](#)
- [Effective Altruism Is Pushing a Dangerous Brand of 'AI Safety'](#)
- [Why we need to care about responsible AI in the age of the algorithm](#)
- [FTC advice to companies implementing AI](#)
- [Understanding Gender and Racial Bias in AI](#)
- [Report to the CWA Executive Board on AI Principles and Recommendations](#)

Interrogating Present and Future Possibilities

- [9 ways AI is helping tackle climate change](#)
- [Op-Ed: AI's Most Pressing Ethics Problem](#)
- [For Autistic People, AI Companions Offer Promise and Risks](#)
- [Building, Shifting, & Employing Power: A Taxonomy of Responses From Below to Algorithmic Harm](#)
- [Shoshana Zuboff Explains Why You Should Care About Privacy](#)

Endnotes

1. Artificial Intelligence - Global: Statista market forecast. Statista. (n.d.). https://www.statista.com/outlook/tmo/artificial-intelligence/worldwide

2. The Economist Newspaper. (2024, August 19). Artificial Intelligence Is Losing Hype. The Economist. https://www.economist.com/finance-and-economics/2024/08/19/artificial-intelligence-is-losing-hype

3. Brecheisen, J. (2024, May 14). Research: What companies don't know about how workers use AI. Harvard Business Review. https://hbr.org/2024/05/research-what-companies-dont-know-about-how-workers-use-ai

4. Brecheisen, J. (2024, May 14). Research: What companies don't know about how workers use AI. Harvard Business Review. https://hbr.org/2024/05/research-what-companies-dont-know-about-how-workers-use-ai

5. Pendell, H. B. and R. (2024, March 8). 72% of top chros see AI replacing jobs - and workers aren't ready. Gallup.com. https://www.gallup.com/workplace/509540/top-chros-replacing-jobs.aspx

6. Gibbs, S. (2018, May 9). Gmail smart compose: Google will now autocomplete whole emails. The Guardian. https://www.theguardian.com/technology/2018/may/09/gmail-smart-compose-google-will-now-autocomplete-whole-emails

7. Laborde, S. (2024, May 28). Gmail statistics for 2023 (market share, growth, and trends). The Tech Report. https://techreport.com/statistics/software-web/gmail-statistics/.

8. Hammond, G. (2024, July 26). Ai start-up Anthropic accused of "egregious" data scraping. https://www.ft.com/content/07611b74-3d69-4579-9089-f2fc2af61baa

9. Hammond, G. (2024, July 26). Ai start-up Anthropic accused of "egregious" data scraping. https://www.ft.com/content/07611b74-3d69-4579-9089-f2fc2af61baa

10. McLaurin, J. P. (2023, May 17). Younger generations work differently. what does this mean for the future workplace?. Gensler. https://www.gensler.com/blog/younger-generations-work-differently-future-workplace

11. Ibid

12. The Deloitte Global 2024 Gen Z and Millennial Survey. Deloitte. (n.d.). https://www.deloitte.com/global/en/issues/work/content/genz-millennialsurvey.html

13. Hays, K. (2024, August 21). A new web crawler launched by Meta last month is quietly scraping the web for AI Training Data. Fortune. https://fortune.com/2024/08/20/meta-external-agent-new-web-crawler-bot-scrape-data-train-ai-models-llama/

14. Michael. (2023, December 27). The Times sues OpenAI and Microsoft over A.I. use of copyrighted work. The New York Times. https://www.nytimes.com/2023/12/27/business/media/new-york-times-open-ai-microsoft-lawsuit.html

15. Cho, W. (2024, August 8). YouTube creators step into legal battle against openai with class action lawsuit. The Hollywood Reporter. https://www.hollywoodreporter.com/business/business-news/youtube-creators-step-legal-battle-against-openai-class-action-lawsuit-1235968822/

16. Cho, W. (2024, August 8). YouTube creators step into legal battle against openai with class action lawsuit. The Hollywood Reporter. https://www.hollywoodreporter.com/business/business-news/youtube-creators-step-legal-battle-against-openai-class-action-lawsuit-1235968822/

17. https://artificialintelligenceact.eu/

18. From Companies Market Cap September 10, 2024: https://companiesmarketcap.com/apple/marketcap/

19. Hinduja, S. (2023). Generative AI as a Vector for Harassment and Harm. Cyberbullying Research Center. https://cyberbullying.org/generative-ai-as-a-vector-for-harassment-and-harm

20. Read also https://www.nyu.edu/about/news-publications/news/2023/december/alexa--am-i-happy--how-ai-emotion-recognition-falls-short.html

21. https://www.technologyreview.com/2019/03/05/65990/about-40-of-europes-ai-companies-dont-actually-use-any-ai-at-all/

22. https://www.nytimes.com/2024/04/29/technology/ai-startups-financial-reality.html

23. $13.5B into OpenAI https://www.cbinsights.com/company/openai/financials and $7.3B into Anthropic https://www.nytimes.com/2024/02/20/technology/anthropic-funding-ai.html

24. "2024 Gen Z and Millenial Survey: Living and working with purpose in a transforming world." Deloitte. "The majority of Gen Zs (86%) and millennials (89%) say having a sense of purpose is important to their overall job satisfaction and well-being. And these generations are increasingly willing to reject assignments or employers who don't align with their values." https://www.deloitte.com/global/en/issues/work/content/genz-millennialsurvey.html

25. Reisner, Alex. "These 183,000 books are fueling the biggest fight in publishing and tech." The Atlantic. September 25, 2023. https://www.theatlantic.com/technology/archive/2023/09/books3-database-generative-ai-training-copyright-infringement/675363/

26. Roth, Emma. "Authors sue Anthropic for training using pirated books." The Verge. August 20, 2024. https://www.theverge.com/2024/8/20/24224450/anthropic-copyright-lawsuit-pirated-books-ai

27. Chmielewski, D., & Broadway, D. (2024, August 14). Hollywood Union strikes deal for advertisers to replicate actors' voices with AI | Reuters. https://www.reuters.com/technology/artificial-intelligence/hollywood-union-strikes-deal-advertisers-replicate-actors-voices-with-ai-2024-08-14/

28. AFTRA Podcast: "Sag-aftra introduces A.I. Agreement with narrativ." SAG. (2024, August 15). https://www.sagaftra.org/sag-aftra-podcast-%E2%80%9Csag-aftra-introduces-ai-agreement-narrative

29. Far from the sophisticated, sentient machines portrayed in media and pop culture, so-called AI systems are fueled by millions of underpaid workers around the world, performing repetitive tasks under precarious labor conditions. And unlike the "AI researchers" paid six-figure salaries in Silicon Valley corporations, these exploited workers are often recruited out of impoverished populations and paid as little as $1.46/hour after tax. https://www.noemamag.com/the-exploited-labor-behind-artificial-intelligence/

30. Elizabeth Fisher, Michael A. Flynn, Preethi Pratap, and Jay A Vietas. "Occupational Safety and Health Equity Impacts of Artificial Intelligence Review." International Journal of Environmental Research and Public Health. July 2023. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10340692/

31. Privacy & Racial Justice. EPIC. (n.d.). https://epic.org/issues/democracy-free-speech/privacy-and-racial-justice/

32. https://www.nist.gov/news-events/news/2022/03/theres-more-ai-bias-biased-data-nist-report-highlights

33. Alex Hanna https://www.sir.advancedleadership.harvard.edu/articles/understanding-gender-and-racial-bias-in-ai

34. U.S. sweltered through its 4th-Hottest Summer on record. National Oceanic and Atmospheric Administration. (n.d.). https://www.noaa.gov/news/us-sweltered-through-its-4th-hottest-summer-on-record#:~:text=Meteorological%20summer%20(June%20through%20August,fourth%2Dhottest%20summer%20on%20record.

35. The 8 countries most affected by climate change. World Food Program USA. (n.d.). https://www.wfpusa.org/articles/countries-most-affected-by-climate-change/

36. The 8 countries most affected by climate change. World Food Program USA. (n.d.). https://www.wfpusa.org/articles/countries-most-affected-by-climate-change/

37. Frazin, R. (2024, August 1). Biden administration to pay western farmers to conserve water. The Hill. https://thehill.com/policy/energy-environment/4806507-biden-administration-pay-farmers-water-conservation/

38. Saenko, K. (2023, May 23). A computer scientist breaks down generative AI's Hefty Carbon Footprint. The Conversation. https://theconversation.com/is-generative-ai-bad-for-the-environment-a-computer-scientist-explains-the-carbon-footprint-of-chatgpt-and-its-cousins-204096

39. Coleman, J. (2024, February 20). Ai's climate impact goes beyond its emissions. Scientific American. https://www.scientificamerican.com/article/ais-climate-impact-goes-beyond-its-emissions/

40. Petersen, M. (2024, August 26). How much more water and power does AI computing demand? tech firms don't want you to know. Los Angeles Times. https://www.latimes.com/environment/story/2024-08-26/tech-firms-conceal-water-and-power-demands-of-ai-computing

41. Petersen, M. (2024, August 26). How much more water and power does AI computing demand? tech firms don't want you to know. Los Angeles Times. https://www.latimes.com/environment/story/2024-08-26/tech-firms-conceal-water-and-power-demands-of-ai-computing

42. Buolamwini, J. (2023, September 12). Fighting the "coded gaze." Ford Foundation. https://www.fordfoundation.org/news-and-stories/stories/fighting-the-coded-gaze/#:~:text=I%20think%20of%20the%20coded,a%20narrow%20group%20of%20people.

43. Applying a racial equity lens to digital literacy. (n.d.-a). https://nationalskillscoalition.org/wp-content/uploads/2020/12/Digital-Skills-Racial-Equity-Final.pdf

44. Applying a racial equity lens to digital literacy. (n.d.-a). https://nationalskillscoalition.org/wp-content/uploads/2020/12/Digital-Skills-Racial-Equity-Final.pdf