



# AI Weakening The Workforce

Prepared for **Dr. Amy Eggert**

Submitted by Rebecca Ruhnke

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**Memo**

To: Dr. Amy Eggert

From: Rebecca Ruhnke

Date: April 15, 2024

Subject: Completed Formal Report on AI Weakening the Workforce

This report explores the various uses of Artificial Intelligence (AI) in our labor force and will be ready to present on the due date requested

This report examines how Artificial Intelligence has been used in various parts of the workplace, specifically covering how it disrupts recruitment. Using reliable research and sources, I aim to inform my audience about how company figureheads have misused AI to the detriment of workers; I will persuade against the support of AI by analyzing how AI affects the application and hiring process, leading to possible cases of discrimination and inequality in choosing candidates. I also aim to provide thorough research on these occurrences and offer solutions.

I would like to grant overdue gratitude to Dr. Eggert for requesting and taking an interest in this report. As Artificial Intelligence grows in popularity, we must examine our use of it as a society. As I am pursuing career opportunities that are affected by the corrupt use of AI and have already encountered AI throughout the application and interview process, my report is far from impartial. Still, the information presented will be reliable and well-researched.

## Table of Contents:

Memo of Transmittal .....	2
List of Figures .....	4
Executive Summary .....	5
Introduction and Background .....	6
Analysis & Data .....	8
AI & Hiring Implementations .....	8
Biases and Discrimination .....	9
AI & Interviews .....	13
Conclusion .....	19
Recommendations .....	20
Work Cited .....	21

## List of Figures

Figure 1: Chart - Corporate Investment in AI, from NetBase Quid 2023 .....	6
Figure 2: Bar Graph - Popularity of Indeed and LinkedIn .....	8
Figure 3: Tree Map - Primary Reasons for AI Biases .....	9
Figure 4: Circle Diagram - Hidden Biases in Automated Employer Practices .....	11
Figure 5: Bar Graph - Women & AI Job Disruptions .....	12
Figure 6: Image - How AI Interviews May Look To Recruiters .....	13

## **Executive Summary**

Since the 1980s, Artificial Intelligence (AI) has been applied to the American workforce. Over the years, as technology has advanced, so too has our reliance on and utilization of AI. The following are the main concerns about letting AI operate unregulated in the workplace, per this report:

- Research on how AI's bias' influences the hiring process
- Research on how the use of AI can lead to discrimination & inequality
- How abuse of AI affects the current people searching for a job or career
- How abuse of AI divides and rids of necessary human interaction
- How consistent use of AI creates room for negligent workers & Policies

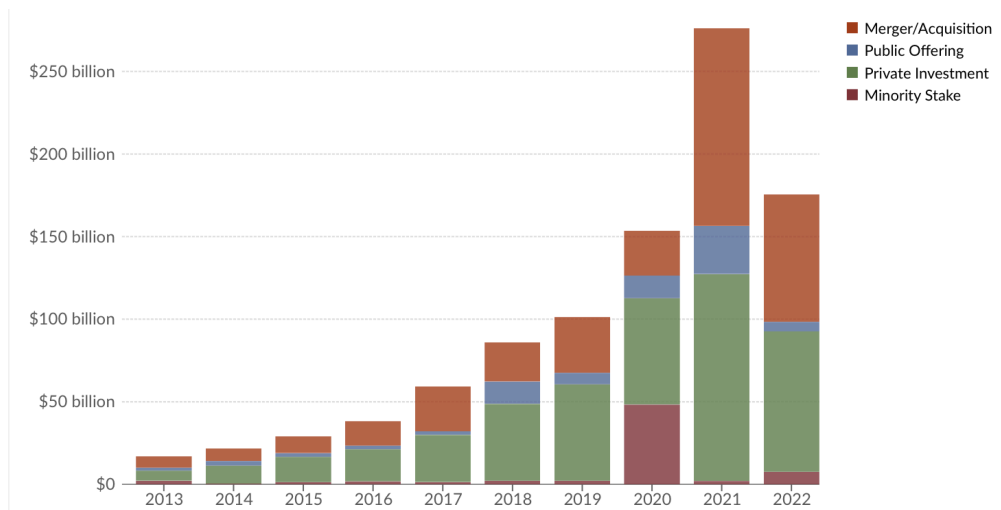
Even while the majority of people applaud the advancements in AI, it is insufficient to let AI drastically alter our workforce in the absence of appropriate laws following these steady technological changes.

The main objective of this research is not to condemn or discourage the use of AI, but rather to draw attention to the threat that it poses to American workers. My goal is to help job-seekers and colleagues prepare for the increasingly common misuse of AI that they may encounter when pursuing employment. This paper intends to bolster criticism of AI by alerting readers about its harmful consequences.

## Introduction and Background

AI has been incorporated into the workforce for decades, debuting in the 1980s. During the fifty years that AI has been developed, changes have been made continuously to advance the technology. Considering the enormous amount of resources that have been invested in this instrument over many years, this is not shocking. The following image, which is derived from Kiela et al. (2023), illustrates the value of AI to date, with billions of dollars being spent to develop this type of tool (Figure 1).

“Annual global corporate investment in artificial intelligence, by type”



**Data source:** NetBase Quid via AI Index Report (2023)

**Note:** Data is expressed in constant 2021 US\$. Inflation adjustment is based on the US Consumer Price Index (CPI).  
OurWorldInData.org/artificial-intelligence | CC BY

Figure 1. Chart about corporate investment in AI taken from NetBase Quid 2023.

The use of AI is becoming progressively more widely recognized and does not appear to be fading away soon. As I write this report, I hope to help Bradley University

juniors and seniors learn crucial information about AI as they plan for their potential careers. This is part of my larger mission to educate the public about navigating the misuse of AI. To thrive alongside AI, individuals must learn how to utilize AI properly and recognize when it is not, primarily when exploring and working in various careers.

Strictly speaking, AI has a lot of promising functions, but to flourish in the modern workforce, one must be aware of its many drawbacks.

- Misuse of AI leads to the disqualification of perfectly good job candidates
- AI functions on algorithms that have been created off human bias
- Corrupt use of AI leads to larger unemployment rate

## Data and Analysis

### AI & Hiring Implementations

As AI has been introduced and applied to many application formats and job sites, it's nearly impossible to avoid this conversation surrounding the usage of AI in these areas, or even to avoid AI itself. Popular job application sites such as LinkedIn, Indeed, ZipRecruiter, and Glassdoor use AI to review resumes and applications; in a majority of these cases, the candidate's information is viewed through an algorithm before it gets viewed by human recruiters and hiring managers.

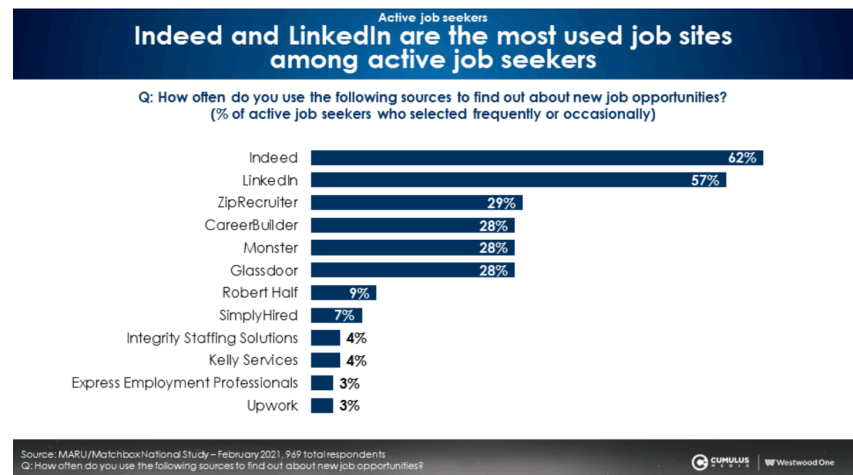


Figure 2: Popularity of Indeed and LinkedIn

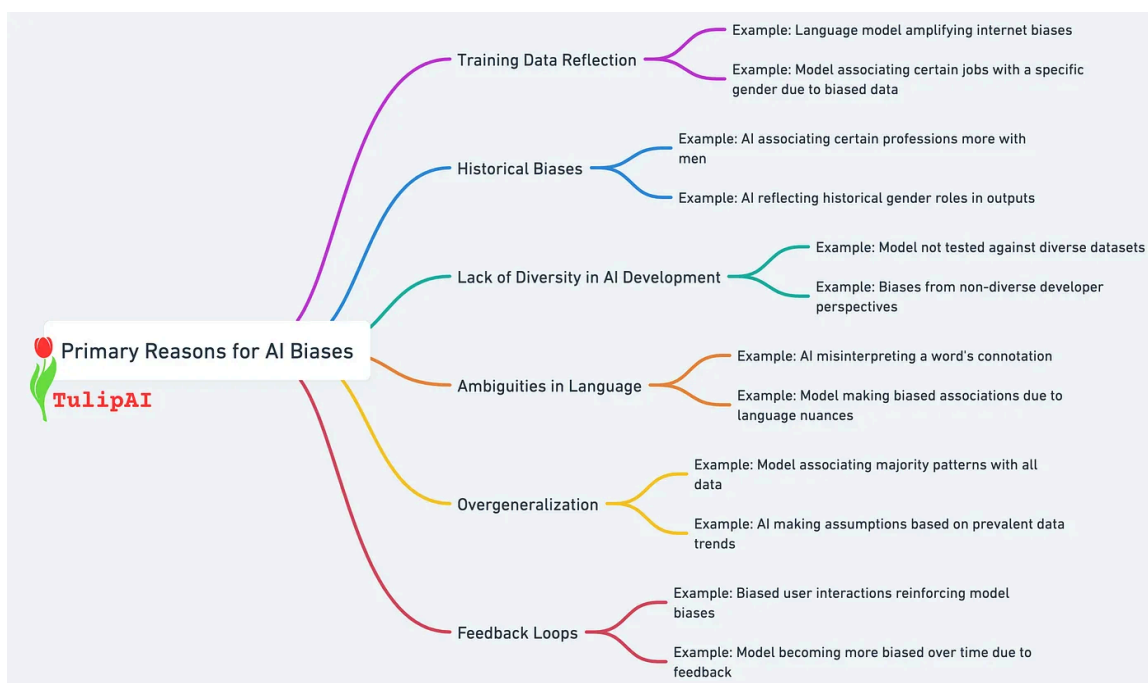
These popular application sites tend to be used solely as the company's main source for recruitment, thus depending on the AI to review the applications thoroughly, expecting little to no consequences or hiccups. Due to the ignorance and misuse of its overvalue, knowingly or unknowingly, companies eliminate exceptional candidates who would have otherwise excelled in their positions and would have brought great success to the company. All this can happen due to AI algorithms and imprinted biases.



## Biases and Discrimination

To understand how AI weakens the hiring process, we must understand how AI recruitment works. Miranda Bogen’s article, “All The Ways Hiring Algorithms Can Introduce Bias” sheds light on how these biases are used in the hiring process as well as the different methods that are used. As she carries out her analysis of algorithms, Bogen points out that the AI can “replicate institutional and historical biases, amplifying disadvantages lurking in data points like university attendance or performance evaluation scores.”

Figure 3: Primary Reasons for AI Biases



Source: TulipAI

When an algorithm can pick up on negative stereotypes, this can lead to cases of discrimination or unfair situations. To help solidify her argument, Bogen pulls research

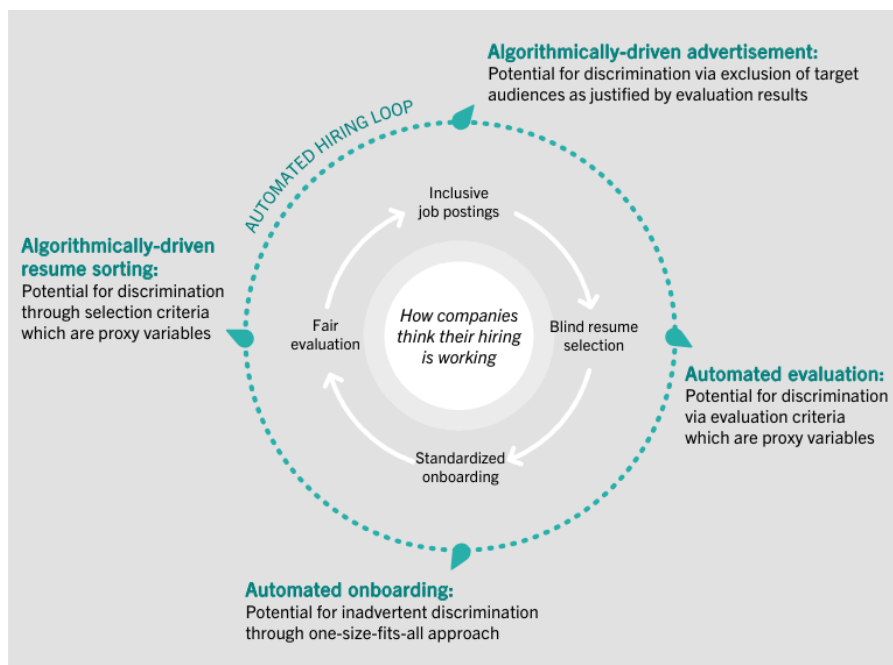
from a study she conducted with colleagues from Northeastern University and USC, as they found that “broadly targeted ads on Facebook for supermarket cashier positions were shown to an audience of 85% women, while jobs with taxi companies went to an audience that was approximately 75% black.” This is a prime example of an algorithm reproducing bias from the real world, without human intervention.

As Miranda Bogen continues, she alludes to the movement to ‘de-bias’ algorithms and the failure to do so. Noting how the implicit performance data has been tainted by lasting outcomes of sexism, racism, or other forms of structural bias, Bogen states that “de-biasing a hiring algorithm built from that data is merely a band-aid on a festering wound.”

AI upholding discrimination throughout the hiring process is further mentioned in the article, “How Artificial Intelligence Might Prevent You From Getting Hired,” published by ACLU and written by Olga Akselrod and Cody Venzke. Akselrod and Venzke affirm that AI is used throughout the entirety of the hiring process, from how job applications target candidates to how some recruiters use AI tools that “purport to measure personality traits through voice analysis of tone, pitch, and word choice and video analysis of facial movements and expressions” during video submissions and interviews. They confirm that AI in the hiring process is unavoidable which means that algorithm bias is also unavoidable. Verifying their argument, Venzke and Akselrod discuss how recent reports indicate that “70% of companies and 99% of Fortune 500

companies are already using AI-based and other automated tools in their hiring processes,” with growing use in lower-paying industries where Black and Latinx workers are disproportionately concentrated, like retail and food services.

Figure 4: Hidden Biases in Automated Employer Practices



Source: Adapted from Ajunwa, Ifeoma. “The Paradox of Automation as Anti-Bias Intervention,” 41 Cardozo, L. Rev. 1671 (2020), <https://ssrn.com/abstract=2746078>.

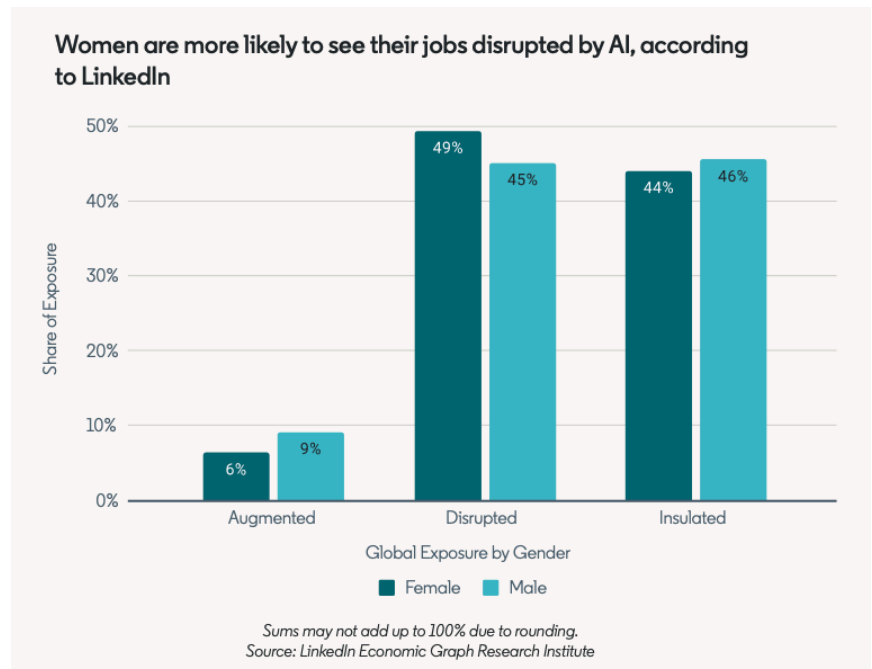
As these conversations

surrounding how AI biases can negatively affect the hiring process, many articles discussing individuals’ experiences have come forward, inviting the job recruiting sites to either confirm or deny these claims. LinkedIn, one of the largest job recruiting sites, published two vastly diverse articles discussing this topic. In one article, Mark Geraghty writes how the rise in AI for job recruitment has caused challenges and concerns, noting the AI biases, lack of privacy, lack of human connection, and furthering trust issues among candidates. Confirming how frequently AI is used in recruitment through resume scanners, skill assessments, predictive analytics, video interview scanners, and

candidate matching, Geraghty poses the question of whether or not AI should be trusted. To resolve trust issues with AI, he lists ways candidates and recruiters can balance innovation and trust, such as monitoring usage, human-AI collaborations, and transparent communication.

Figure 5: Women & AI Job Disruptions

On the other hand and opposing the research conducted on how AI is used in the hiring process, in another article that was published through LinkedIn, Kristen Fife states in her title, “No, AI is NOT Scanning Your Resume And Rejecting You When You Apply For A Job.”

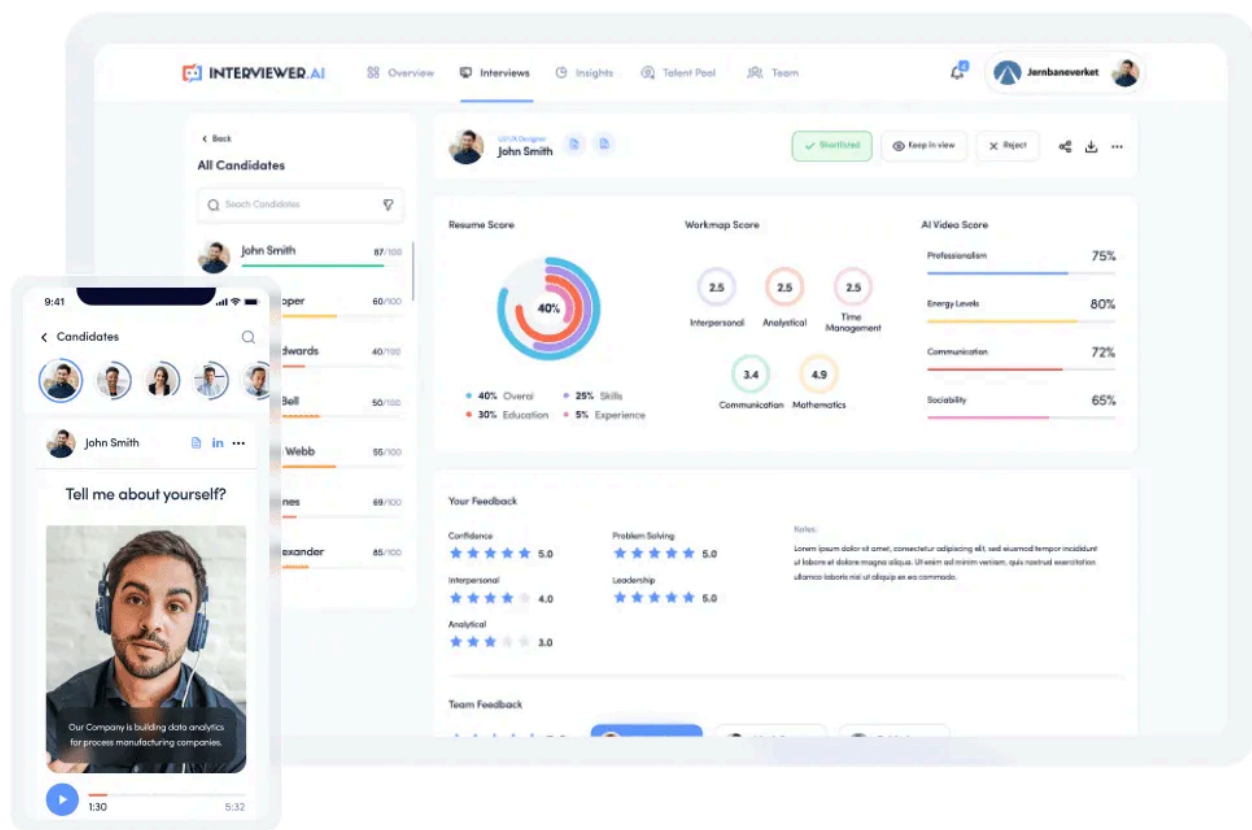


Interestingly, in this article, Fife confirms that AI is inherently biased, which is something that Geraghty poses as an issue. The fact that these two very alternative articles have been published under one of the job recruitment sites that uses AI to scan resumes raises some eyebrows on the journey to find the truth.

## AI & Interviews

As AI video scanning for interviews was mentioned, even if the candidate can surpass the AI application and resume scanners, the interview process continues the trend of human disconnect.

Figure 6: Image of How AI Interviews May Look To Recruiters



Source: Adapted from Interviewer.AI

In the article, “The Job Applicants Shut out by AI: ‘The Interviewer Sounded like Siri.’” published under *The Guardian*, Alaina Demopoulos writes how AI biases have increased cases of discrimination and how this technology widened the loss of the human element. Upon interviewing Julia Pollak, the chief economist at ZipRecruiter,

Pollak addresses the usage of AI to write job descriptions, stating that she does not use it herself, however, she knows many of her coworkers who do. Demoploulos writes, “Pollak said that a manager might also ask an AI program to give them a list of reasons why they should, or should not, hire a final-round candidate.” This can easily fly south as managers themselves may be able to program the AI to uphold their biased views and unrealistic expectations.

Alaina Demopoulos proceeds with her discourse on how algorithms are trained to include biases, referencing how Amazon reportedly “scrapped an in-house hiring algorithm, trained on data submitted by applicants, that favored men and penalized résumés that included the word ‘women.’”

Interviewing Ty, a twenty-nine-year-old who lives in the DC metro area, on their experience through the hiring process and interview process, they mentioned how during one of their interviews, the interviewer did not even sound human. Demopoulos writes how Ty “realized they weren’t speaking to a living, breathing person. Their interviewer was an AI system, and one with a rather rude habit.” The AI system asked all the right interview questions but never let Ty complete his answers, which was notably aggravating and creepy.

She carries on this conversation by asking whether or not the usage of AI for recruiters could be considered cheating or unprofessional. After asking this question Michael G, the founder of Final Round AI also known as an “interview co-pilot”,

answers, “I believe that because of AI, there are new boundaries and it’s hard to define whether someone is cheating or not.” Finalizing his response, he adds that if he were an employer, he would prefer a candidate who knows how to use AI as it would bring more value and productivity to boost the company. Yet, this begs the question, is the candidate adding value or is it their ability to press a button?

From the way AI can track your facial expressions to score them to the way AI can be used to conduct an interview, it is significant that we address how peculiar, risky, and unethical these practices are and how detrimental they are to the hiring process. However, these practices are used further in the workplace once a candidate has been accepted for a job; there is no escaping this phenomenon, we can only educate, monitor, and adapt.

## Conclusion

The usage of AI throughout the workforce is not slowing down any time soon. It touches every aspect of our working lives, from:

- The Recruitment Process
- The Application Process
- The Interviewing Process
- The Onboarding Process
- Equitable Opportunities in The Workplace

As I conclude this report, my main objective of this research was to draw attention to the threat that it poses to job seekers and recruiters and to help our colleagues get ready for the increasingly common abuse of AI that they may encounter when looking for work or even at their current jobs. As I close, hopefully, I encouraged readers to consider the valid criticism of AI and its harmful consequences.



## Recommendations

Since most job recruiting sites, hiring managers, recruiters, and companies rely on AI to improve their practices, AI has officially broken the code for basic human connection, thorough communication, and hard work. To be oblivious to how AI has weakened the workforce will only lead to more cases of discrimination and stressful job searches. To change these practices, it is vital that people

- Get familiar with AI
  - Have one Resume scanned and approved by AI to be submitted through AI
  - Have one Resume that encapsulates the human element to be submitted directly to a human
  - Take online practices and courses to learn how to properly use it
- Ask companies if they use AI in their practices and avoid those that use them unethically and/or confront them
- Create laws and regulations to create a safer environment surrounding AI

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