The Cost of Convenience

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Created vs. Earned

The ethical issue I am looking into is about implementing artificial intelligence in the workplace and how it is affecting new graduates along with college students as a whole. The main issue present is that artificial intelligence is mainly being used to complete jobs that were predominantly done by entry level new graduates before they are able to do more high level work. This is very important today as we are living through the artificial intelligence boom, this growth happened so suddenly that we never really were able to establish any sort of standards to ensure any set of ethics is upheld. As this continues to progress it is important we deeply research the ethical consequences to be sure this doesn't turn into a disaster for a large number of people's lives who have spent tens of thousands, upwards of hundreds of thousands of dollars and years of work all to struggle to land even the lowest level of entry level careers. The efficiency that comes with artificial intelligence is something we have never seen before and will change the workforce massively. The greatest effect though will be placed on graduates. The major argument with this is the debate between the efficiency of this new tech vs. the fairness of hiring new graduates.

The Major Dilemma

The broad view

The major dilemma is relatively obvious with artificial intelligence picking up the bulk of the work. Less and less opportunities are available for graduates in this new workplace. “The adoption of generative artificial intelligence (GenAI) in the workplace is skyrocketing, rising from 22% in 2023 to 75% in 2024” artificial intelligence is being used more and more and it seems as though it is going to continue to grow (Ramos et al., 2025). This is a classic example of fairness vs. efficiency. This is a very complex issue, looking at it objectively, if artificial intelligence is able to complete a job far more efficiently and far cheaper than someone, should we utilize them? As someone who is about to graduate I see both sides, I am worried about the job market I am going to be walking into. I spent years researching my field and now I have the fear that I may not be able to land a job in it. Wouldn't it be more fair to give a chance to new graduates who can build on the skills they have worked for? As humans I would assume the average opinion would be more likely to side with the new graduates when you take a look at the general idea of the argument.

Lives at stake

Now what about in a medical field, if we know that artificial intelligence is more advanced than some new graduates and has potential to become more advanced and potentially find cures for or diagnose medical issues we have not been able to find or detect issues far earlier than we'd be able to then what would be the more ethical decision in this sense?

When framed this way it's a much harder decision. This difficult question isn't just limited to the medical field. We can detect natural disasters much faster and help people get to shelter before it's too

late. We can advance self-driving vehicles to the point where accidents are no longer happening. There are many situations where artificial intelligence implementation will almost certainly save many people's lives.

There must be some solution that exists to balance the fairness that new graduates deserve along with the efficiency that artificial intelligence can bring. This solution must allow new graduates a fair chance in their field along with maintaining the level of efficiency artificial intelligence excels in.

The Stakeholders

New graduates

One of our first stakeholders is the graduates themselves. Their entire career may lie on the future decisions that will be made regarding artificial intelligence ethics. They could lose out on time spent studying and money spent on school. Even worse, they could lose the salary they need to survive past school, unable to buy necessities and pay off the debt they are now stuck in. “Even if a technology is beneficial on average, costs tend to be concentrated,” this quote represents the issue well (Gallego & Kurer, 2022). Many people will not see the cost as it is a cost mainly placed onto new graduates entering these fields.

Universities

The second stakeholder is the university. They rely on students being confident that the school will be able to give them valuable information that will land them a career that will give them a high enough salary for them to live off of. Majors could change if some become obsolete and some colleges may fade away if students don't trust they can get value out of the program. Universities tend to lean in the direction of education for white collar jobs which are the jobs mainly affected by the use of artificial intelligence, see figure 1 (Massenkoff & McCrory, 2026). These schools rely on the need for education students have in order to get these jobs. If these students are no longer in need of these jobs or wanting these jobs then universities will have to completely reshape themselves or risk being phased out in this new generation of technology.

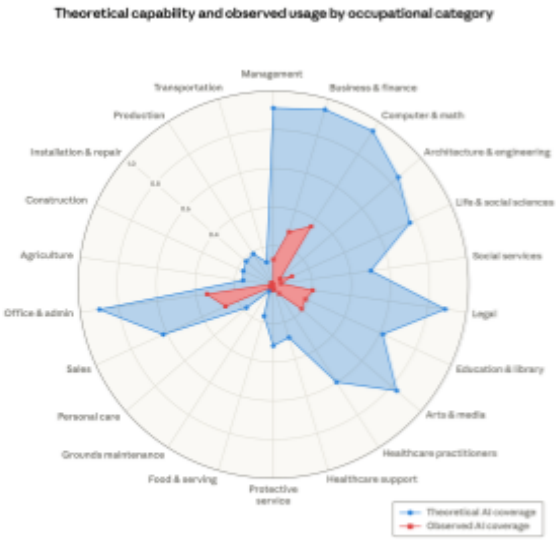

Figure 1. Theoretical capability and observed exposure by occupational category. From Massenkoff & McCrory (2026).

Employers

The third is the company themselves, the people employing these new graduates. They must decide if they want to spend the extra money to hire these graduates or if they want to have the higher efficiency and lower cost associated with artificial intelligence. “Just 30% of 2025 college graduates secured a full-time job in their fields. That is down from 41% who secured full-time work in the Class of 2024” (Dickler, 2025). This statistic doesn't directly prove artificial intelligence is the cause but with the recent explosion in implementation by employers it could be a very strong contributor.

Clients

The fourth is the user of said companies, or generally the client. The quality of the product or service they receive will also be reliant on this decision. The quality of service is most likely going to be better if artificial intelligence is implemented and improved. One major factor they will be missing out on though is the face to face interaction associated with working with people. Although this isn't a massive point people consider it is still a benefit as dealing with people can be much easier in many situations. In many fields though as stated above a higher level of efficiency could be the difference between life or death and in these situations it is the most important to really ensure the best decision is made. This leads us into the big problem of finding a solution.

How can we benefit them all?

The benefits are very clear of implementing artificial intelligence, companies are able to work at a much higher efficiency while cutting costs along with better results in most situations. This comes at a massive cost of fairness to students who have worked for years to try to improve their skills in a field that they are hoping to dedicate a career to. I see one solution as the one that works best for this. One journal stated it perfectly, “There is a need to keep the human-in-the-loop and to complement AI-based learning approaches with non-AI counterparts to reach augmentation” (Wilkens, 2020). We don't need to completely disregard these students. They still have the knowledge to do these jobs but alone they may be less efficient in a side by side comparison with artificial intelligence. Working together using artificial intelligence as a tool gives you the best results from both sides. Students should actively be learning how to use these tools as they learn how to build a career with the knowledge they gain. Mechanics did not lose jobs because of the invention of the wrench. Doctors didn't get phased out due to the creation of X-Ray imaging. These tools are used to boost the efficiency of employees to ensure they are able to complete jobs to the fullest extent. Artificial intelligence should be used collaboratively so that the students going into this field are able to accomplish tasks with more efficiency. This does affect the cost that companies will see but this should be looked at as a non issue overall. Companies have already been paying employees for as long as they have existed and they should be expected to continue, the efficiency they will get out of these employees should be able to bring more revenue to these employers and give them the ability to even increase head count in many situations bringing in even more employees.

Final Thoughts

Overall this is a very difficult ethical dilemma to tackle. The improvements in artificial intelligence have come so suddenly that we have not yet put enough effort into considering the outcomes. Artificial intelligence is able to work at a much higher level of efficiency than a new graduate but this comes at the cost of fairness to those looking for jobs. To balance this we must look at artificial intelligence as a useful tool, something to be used in collaboration with an employee to get the best results when working on a task. Companies should not slow down or stop hiring and should not

consider layoffs because of new technology available to them. This technology will work best when used by employees not used to replace them. If students are well prepared during education on how to best use these tools it will lead them to the best position they can be in when looking for career opportunities and give employers more reason to hire them. Becoming an expert in artificial intelligence will be incredibly useful to these students as the career expectations shift. This seems to be the best solution for all stakeholders, new graduates are able to find jobs easier, universities will still be able to thrive with a level of value that students will find useful, employers will get the efficiency they prefer, and finally clients will have real people to interact with along with benefitting from the efficiency and accuracy these companies will be able to provide.

References

Dickler, J. (2025, November 15). Ai puts the squeeze on new grads - and the colleges that promised to make them employable. CNBC. https://www.cnbc.com/2025/11/15/ai-puts-the-squeeze-on-new-grads-looking-for-work.html

Gallego, A., & Kurer, T. (2022, May). Automation, digitalization, and artificial intelligence in the workplace: Implications for political behavior | annual reviews. Annual Reviews. https://www.annualreviews.org/content/journals/10.1146/annurev-polisci-051120-104535

Massenkoff, M., & McCrory, P. (2026, March 5). Theoretical capability and observed exposure by occupational category [Figure 2]. Anthropic Research. https://www.anthropic.com/research/labor-market-impacts

Ramos, H. C. P., Caro, O. C., Bardales, E. S., Huatangari, L. Q., Trigoso, J. A. C., Guevara, J. L. M., & Santos, R. C. (2025, July 15). Artificial Intelligence Skills and their impact on the employability of university graduates. Frontiers. https://www.frontiersin.org/journals/artificial-intelligence/articles/10.3389/frai.2025.1629320/full

Wilkens, U. (2020, August 14). Artificial Intelligence in the workplace – a double-edged sword | international journal of information and learning technology | emerald publishing. Emerald Insight. https://www.emerald.com/ijilt/article-abstract/37/5/253/137277/Artificial-intelligence-in-the-workplace-A-double?redirectedFrom=fulltext

Authors Note

While creating this work I used many real world situations and issues I have personally experienced with the artificial intelligence boom. This is a real issue I and many others are facing as we near the end of our education. Outside of my personal experiences I looked for multiple research articles and news pages to get a better understanding of the issue as a whole. Overall I found many situations frame the issue similarly to me. I then took all of this information in and attempted to frame the ethical dilemma the best I could taking in the view points from all angles. I believe with all of the information available to me I was able to lay out one of the best possible solutions moving forward. I hope I was able to get my idea across and explain the main issue in a way that is understandable. The solution truly seems to be the one that would work best in the future and is one I actively am trying to prepare myself for.