

# Exploring the Intersection of Creativity and AI

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## Introduction

We are a group of high school seniors and college freshmen who took part in Stanford University's STEM-to-SHTEM summer research internship, with a focus on generative AI. Our research culminated in the creation of a zine, which we hope will inspire others to see the possibilities of creative collaboration between humans and AI.

Misconceptions about AI are rampant in the modern world, only heightened by the cries of false media reports and speculations over the future of the workforce. While valid concerns have been voiced and there is a real need to put protections in place to make sure that our work with AI is both ethical and sustainable, our goal is to combat any and all fallacies by illuminating the limitless potential of AI's applications in the creative world.

Going into this internship, our research team had various opinions and ideas regarding AI. There were the avid supporters who were optimistic for the new capabilities AI would gain next to alleviate burdens from our lives, and those more apprehensive over what the implementation of AI would mean for the future of the workforce and creatives in general. Over the past two months, we have bridged gaps in our knowledge about AI and come together to become a collaborative force. In working together as a team, we have learned to question the bias each of us brings to our work, to listen to one another and honor our differences, finding that each of our unique perspectives strengthens our work as a group.

Ultimately, we created a zine that both expresses our collective humanness and is enhanced by substantial collaboration with AI, in order to illuminate the intersections between AI and the arts.

## Background

The members of our team all span different backgrounds, be it through race, ethnicity, gender, location, religious beliefs, socioeconomic status, or interests in general. As such, each person was in the position to uniquely contribute their own perspective based on their own realities, and as the internship went on, question the bias that each of us brings to our work.

To ensure that we all had a shared knowledge and vocabulary before starting our collaboration, we began conducting extensive research into the world of AI. Some of our efforts include reading from Safiya Noble's [Algorithms of Oppression](#), watching Shoshanna Zuboff give a talk on *Surveillance Capitalism*, creating a timeline so as to gain a comprehensive look at AI's growth and integration within the past decades in society, becoming familiar with the current tools and applications for working with AI and what they are used for, and working with programs such as Chat-GPT3 and Midjourney to learn how they respond to various data sets.

We benefited from the opportunity to work with various mentors and guest speakers who provided us with new information and perspectives, to further our research. These people included Jonathan Dotan, research leader in the field of AI and human rights, and co-founder of the Starling Lab. Dotan acknowledged the common fears regarding AI and asked us to question them, presenting real world statistics and examples of positive applications of AI. We also had the privilege to learn about and integrate poetry into our work from Gamal Abdel Chasten, a poet, playwright, and actor. His workshop taught us the creative side of this otherwise technical experience, allowing us to unlock our own creativity before attempting to tap into AI's.

We continued to use poetry to deepen our creative process, responding to new writing prompts in advance of each meeting, each one exploring a different topic pertaining to AI and humanity such as "belonging", "fears for the future", and "intersecting AI". Active introspection and deeper probing into the fundamental fabrics of humanity and its differences from technology shed light onto the boundary between the natural and artificial.

Through participation in these various lectures, studies, and research, we were able to build a solid foundation upon which we would base our future research and zine.

# Creative Process

## 3.1 Writing Process

Creativity is not something that can be contained in any form, even AI. With AI spanning multiple platforms for intellectual usage, it was only a matter of time before it began to be integrated into creative platforms. Despite AI's boundless potential, many artists and writers have expressed concern over this new development, particularly artists who are concerned over the violation of copyright in using their work as a data set in the output of AI generated material, and most recently, fears regarding Hollywood studios replacing or exploiting humans through the use of generative AI. During contract negotiations with studios, SAG-AFTRA and WGA unions instigated strikes in the Summer of 2023, which has only furthered the fears of the masses about the use of AI in the fields of film and television, and beyond.

It was this global escalation of fear surrounding a future with AI, coupled with the growing prominence of AI in daily life, that led us to create a zine that illustrates our hopeful view of a future that includes successful collaboration between AI and the creative world, and to question our own misconceptions about what may come next. The members of our team are all active within the creative world; we have screenwriters, actors, poets, and dancers to name just a few, so this was a topic already dear to all our hearts. Through research and experimentation, we have become more informed about the realities of AI and its lack of sentience, and it is our goal to quell the concerns of others and provide hope for the future of the creative world.

## 3.2 Design Process

Throughout our graphic design process we focused on how to convey the potential for collaboration between AI and Human creativity. Our zine serves as a platform for this investigation of the convergence of art and AI, employing a deliberate synthesis of creative decisions influenced by AI input.

Midjourney, our AI collaborator with expertise in visual composition, played a pivotal role in shaping the visual aspects of our project. We meticulously curated motifs that resonated with the historical use of metal in both technological and artistic contexts, effectively forming a visual allegory that bridges the gap between traditional technological confines and innovative artistic expression.

By positioning AI as an active creative partner, we aimed to delve into fundamental inquiries regarding the distinction between human and AI-driven creativity. Through the juxtaposition of historical significance and modern technological transformation, our zine becomes a vehicle for exploring the evolving relationship between human agency and AI's creative influence.

Moreover, we were very careful in considering the bias that may be present during our creative process. For example, many images of human-like AI bots that our resources generated were of skinny, young, white women. To avoid this bias, we gave the AIs specific prompts to diversify the outcome of the images, in addition to focusing more on abstract AI images rather than images of humans.

### **3.3 Interactive Portion**

We strove to create a deep and informative experience, one that would help replace fears with anticipation. Our own creative works shared center stage with AI, with humans and technology generating work that led to the resulting op-ed articles, factual research, games, and poetry.

QR codes were also added so as to create interactive experiences and demonstrations, including a digital timeline with links, a relationship-advice chatbot that provides answers written in limericks, and a ChatGPT-fueled infinite crossword generator. Our goal was to create a renewable, ever-expanding AI experience for the reader, ranging from a teaching tool to comedic relief, from a serious perspective that contemplates morality and a picture of our future with technology.

### **3.4 Our Zine Outcome**

This is *AI and I*, the final culmination of our two months together as a research team. *AI and I* is a creative zine that expresses our own ethical and artistic considerations of using AI, which led to the development of a roadmap for ethical use of AI in the future.

Link to Zine: [Canva viewing link](#)

FERNANDO chat interface: <https://zine-companion.web.app/advice>

Video Presentation Link: <https://www.youtube.com/watch?v=KPGf1vyN9S8&ab>

## What We Learned About AI

### 1) *AI is not all bad.*

Being exposed to new perspectives is great, but that doesn't always mean that it's easy for us to adapt to them. Each of us within our research group was surrounded by people who all possessed their own unique views and sentiments on AI. In our initial approach to this work, we were all a bit wary of AI, and in all honesty, we still are in some regards. However, this experience was the best possible thing that could've happened in regards to shifting our viewpoints of AI. As each of our own preconceived notions were challenged, we were able to expand our understanding of AI and how it can be used to aid people and art forms, not hurt them.

### 2) *AI is not a sentient being.*

The biggest concern we had about AI is how, if it were given the chance, it would be able to overtake the current world in the blink of an eye. However, through the course of our internship, we learned that AI is not an omnipotent being, able to function entirely by itself. AI works within human generated parameters, and any bias or violation of work that results is not the work of AI. Instead, the question arises: "What dangers do humans present once presented with the ability to freely use AI?"

### 3) *AI has been along for much longer than is commonly thought.*

When completing the timeline for the very first week of SHTEM, we recognized that AI dates back to the 1940s and began its rise in the 1960s, not the early 2000's as many of us initially thought. This made us recognize that there is so much false information and misconceptions out about AI, and in order to participate in a productive discourse about the future of AI, we had to learn about its origins, how it developed, and the outcomes that have resulted so far.

### 4) *There is not sufficient legislation on ethical or societal AI parameters.*

Despite AI becoming so prominent within society, there are not nearly enough comprehensive protections around workers rights and creative works. Laws are needed to protect each person, be it through strengthening existing protections regarding copyright and use of individual likeness or rights of workers in fields where technology may threaten their employment and livelihood.

### 5) *You can determine from where an AI gets its exact thoughts.*

AI operates off data sets, just as humans do. With AI it is possible to determine where it acquires its information if we have access to the dataset, as opposed to humans, who form impressions over time through lived experiences. For example, if we ask AI to generate an image of a "cute dog," it might generate a small, fluffy white poodle. With AI, it is possible to look at the data that was used to determine that this type of dog was the cutest; which might include an article about people who love small dogs, a poll that concluded that white is the most popular poodle color, and images of fluffy dogs with captions that include the word "cute." If given access to the

dataset of any given AI we can decipher where and how AI came to these conclusions, and then use this knowledge in the future for making our own data sets with AI, ideally clear of bias. Given this, it is crucial to provide transparency with relation to the datasets used for AI. This openness is essential for spotting any implicit biases that any particular AI system might possess, and for moving forward with the creation of an impartial AI.

*6) Employers are making the switch over to AI.*

Nearly half of all companies are searching for how to integrate AI into their daily operations, as opposed to relying solely on human labor. Already, many employers use AI as a part of their workforce, from customer service to accounting, and those numbers are projected to grow in the future as AI gains more processing capabilities.

*7) AI is more capable of perceiving human emotions than we might think.*

While still lacking the ability to experience real emotion, AI is capable of interpreting the data presented to it and formulating a point of view in response to a prompt. In this way, it can form what could be perceived as an “emotional” viewpoint and share its perspectives or provide advice. The capabilities of AI are not to be underestimated in any capacity, especially when considering its intelligence and work capabilities.

## Future Directions & Conclusions

Regardless of the opinions surrounding AI, it is going to play a significant role in shaping our future. Our generation will likely be the last ones to know what life is like without the presence of AI, and as such, it is up to us to pose necessary considerations for future use.

Our current economy values physical labor, but with the ongoing development of advanced technology, we will continue to mechanize labor, even the most menial of tasks. As such, there has been a substantive shift towards use of digital services that create new jobs based in AI and technology, and eliminate jobs that can be completed solely by AI. As such, it is imperative that society be properly equipped to deal with the fallout, and formulate a plan to sustainably collaborate with AI.

Creativity, and exploration of the arts in general, is subjective. Can a work of art that is not generated by humans, that lacks the benefit of human emotions, be considered “creative”? This is one of the questions that is raised in response to the rise of AI in the creative fields. While not intrinsically a bad thing, AI has replaced some traditionally human roles in the areas of writing, acting, and visual arts. It is increasingly important for us to consider the people affected by such changes and create legislation that protects workers and their rights.

AI will continue to be a transformative force in the creative industry, working independently as well as alongside artists. Mass-generated art will only become more prevalent as the capabilities of AI continue to expand. The perfectionist tendencies of AI prevent it from creating art powered by the same passion that goes into art created by humans, so it is unlikely to replace human-generated work in museums or live performance venues. However, we have to recognize the likelihood that employers will make the switch to AI whenever possible, due to cost savings. This may have long term, negative effects on the economy, as resulting unemployment numbers can contribute to a recession. As such, it is essential that AI be used in collaboration with humans, not replace them.

### **RULES FOR AI IN THE FUTURE**

(As a new generation of teens inherits a world in which the future is becoming ever more intertwined with AI, we have formulated a set of rules aimed at promoting ethical AI usage and minimizing the adverse impacts of AI.)

1. *All artists (actors, screenwriters, artists, writers) cannot have their work or likeness mimicked by AI without their consent.*

As promoted with the SAG strikes, all people should retain control and ownership of their likeness and their work.

2. *There is certain information that AI is not allowed access to.*

This has the potential of compromising national security, and AI and other technological applications should not have any form of access, ever, to important documents or trade secrets (stocks) under legally protected status.

3. *A person cannot be fired for the sole purpose of being replaced by AI, in order for a company to become “more efficient”.*

We recommend an amendment to Title 7 of the Civil Rights Act, stating that employers can not only not discriminate on the basis of race or sex, but also on the grounds of merely being human.

4. *Required public transparency in algorithms.*

Transparency is essential, and it is vital that if AI is continuing to grow in use and prominence, people know where information comes from (information on if AI/what AI was used, access to the dataset the AI was trained on, etc.).

5. *Humans have the final say.*

AI’s capabilities are truly exceptional, yet ultimately, it is the humans that run the show and that must not be forgotten. There must be human oversight over any AI application that has the potential to impact human society, with fail-safes implemented in every program that make it possible for humans to override AI’s decisions and activity.

6. *Humans must dictate any matter with moral relevance.*

With the rise of AI in the medical and legal fields, the question is raised of what will happen in life-or-death situations, be it sentencing a potential criminal, performing a risky surgery or not, or something else. For all such matters, AI may be consulted, for example in providing statistical analysis of a projected outcome, yet all moral and ethical considerations must be left up to humans. This is because only humans are capable of feeling emotions and having a moral compass. Humans are not perfect, that is true, but it is our imperfections that allow us to see the gray area in decision making, to apply compassion to the process of deliberation, and assess the risks to humanity in a given situation, rather than sole consideration of technical and unsympathetic data.

7. *Limits should be imposed on what an AI can and cannot do.*

AI should not be able to have a free-for-all, nor should their inventors. Strict guidelines need to be imposed to limit potential harm caused by the applications of AI..

8. *AI never enters the world of politics as anything more than an advisor.*

Our political differences are already driving us apart, and the use of AI to push information has the potential to exacerbate the political divide, rather than bringing us closer together. AI may be a helpful tool in terms of research and statistical/data analysis, but should never be taking a lead

role in developing socio-political conversation or decisions. Humans must provide oversight in this process.

Collectively, our research team gained a deeper understanding of the complexity of AI and how it will be involved in our future. There are applications of advanced technology that artists can employ to assist in their work, just as there are various opportunities for AI's contributions to academia and being a research assistant.

The ethical considerations of AI have become much more heightened, even in the short period of our internship, and it has become clear that there must be laws in place to protect all people who may be impacted by AI, even those who AI is meant to help. We cannot be too careful when considering the future, and must not lose sight of the value that humans bring to tasks that would be mechanized.

AI is not all that we thought it to be, while, at the same time, it is so much more. As technologies are ever-changing and there are countless programs being developed even as this paper is being read, it is impossible to predict how exactly AI will make its mark but one thing that is certain is that AI is the future, whether we like it or not.

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