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Exploring Sexism in AI and Dystopian Media

Introduction: History of AI

Humans have been interested in the concept of artificial intelligence for thousands of years, way before the creation of the first computer. It is human nature to empathize with objects and create stories around them.

Many mythologies around the world have mentioned aspects of artificial intelligence. An example of this is the story of the Greek god Hephaestus, who had automaton machines that would work in his workshops.¹ This myth was created by people thousands of years ago, who were fascinated by the idea of artificial humans.

As time went on, people became more and more fascinated with the potential of AI. The interest in artificial intelligence picked up in the 20th century, which is where the idea of dystopia comes in. As the technology got better, humanity became increasingly suspicious of it. This spurred the development of dystopia as a genre. While there were dystopian novels before these technological developments, they were not as popular.

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<https://classicalwisdom.com/culture/history/automation-in-the-ancient-world/#:~:text=Hephaestus%2C%20the%20god%20of%20blacksmiths,throw%20rocks%20at%20the%20enemy.>

In 1927, the German film *Metropolis* was released. This silent film portrayed one of the first ever fictional robots in cinema. This robot, called Maschinenmensch, is depicted as a woman with feminine features. She is one of the first representations of AI being evil in the media, for she attacks the city.

In 1950, Alan Turing published his work *Computing Machinery and Intelligence* and the Turing Test. The test was designed to test if artificial intelligence is capable of thinking like a human being.² It would be a while before a computer program could pass this test, since at this point they could not store information.

The interactive computer program ELIZA was created in 1965.³ This program can converse with people in English, but it is fairly clunky and feels obviously artificial. The creator, Joseph Weizenbaum, created it so people would realize that talking with a computer would feel superficial. However, many people anthropomorphized 'her.' Later on, a similar AI program called ALICE was created.

As time went on, the artificial intelligence got more advanced, and the dystopian media evolved alongside it. There were many notable inventions throughout the 1990's and 2000's, which was also around the time media like *The Matrix* was released.

In 2016, Hanson Robotics created an AI robot called Sophia. She is able to recognize images, make facial expressions, and communicate. Artificial Intelligence continued to become even smarter. In 2017, the Facebook Artificial Intelligence Research Lab trained two AI chatbots to speak with each other. However, the bots ended up gradually creating their own language within themselves, which sparked both concern and intrigue.

² <https://www.techtarget.com/searchenterpriseai/definition/Turing-test>

³ <https://sitn.hms.harvard.edu/flash/2017/history-artificial-intelligence/>

Now in the 2020's, artificial intelligence has become accessible to the average person. ChatGPT is a free resource and SnapChat recently released their own AI program that is available to everyone who has the app installed. Students now have access to these algorithms, which are a powerful resource that may have unintended consequences.

Sexism in AI

Artificial intelligence is an amazing invention that was created by humans. It helps us develop ideas and access certain information very quickly. However, despite its great potential, we must remember that it was created by white men, which means that the group who did the research is not very diverse. The algorithms that artificial intelligence programs are based on are from data collected by people in real life, which means that there will be issues related to human error and bias.

Due to these outdated algorithms being created by men, many of the terms are gendered. An example of this is that the English word “nurse” is often translated by AI as a female-gendered word, while “doctor” is translated as a male-gendered word.⁴ These differences may be small, but artificial intelligence may eventually become self-learning. These inherent biases may be devastating to marginalized people.

Artificial intelligence is also used on social media in order to determine if an image is inappropriate, or “racy.” A higher “raciness score” causes the image to either be taken down or shadow banned. Shadow banning means that the image will not be on explore pages nor will show up in hashtags, which drastically reduces the potential audience that it would have received.

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<https://consilium-europa.libguides.com/genderbiasinAI#:~:text=For%20example%2C%20a%20program%20will,an d%20even%20endanger%20women's%20lives.>

Based on an experiment conducted by Gianluca Mauro from *The Guardian*, it seems that bras or swimming suit tops are part of the issue. When he had no shirt on, his “raciness” score was around 10-15%. Once he put on the bra, the score jumped up to 97%.⁵ The algorithm used on many popular social media sites is way more likely to flag a picture of a woman in a bathing suit versus a man.

Why are shirtless men not flagged? It is because the photos that were used to train these algorithms were likely labeled by conservative straight men. These algorithms were used to train the artificial intelligence to choose what images were “bad” versus “good.” The theoretical men who created this algorithm made the AI associate half naked men with fitness, and associate women in bras as being inappropriate, even if they are both working out. This relates to the real world issue of governing womens’ bodies. Women are scrutinized for every action they take. For example, if they don’t wear makeup, they are messy. If they do wear makeup, they are trying too hard to impress people.

In order to fix this issue, tech companies should analyze who is labeling their data and test it out on photos of both men and women. Right now there is no standard, so corporations are allowed to use whatever artificial intelligence they want. Without regulation, this issue causes female and marginalized content creators to receive less social media traction, which leads them to receive less revenue.

Female content creators are also “encouraged to cover up.” That leads their audience to mostly see women who are covered up versus not, and that encourages the toxic societal views to spread. It also causes certain populations to not be adequately represented on the site.⁶ Social

⁵ <https://www.theguardian.com/technology/2023/feb/08/biased-ai-algorithms-racy-women-bodies>

⁶ Ibid.

media companies also do not take responsibility: when someone is shadow banned by AI, they are not told. Therefore, they get less attention and don't know the reason why.

Another example of artificial intelligence being biased is when Amazon tried to program an AI recruiting tool. They started building the program in 2014.⁷ The goal was for the AI to analyze the resumes of applicants and highlight those with the most talent. Amazon had used artificial intelligence for other aspects of their company for a while (products, delivery, etc) and they wanted to expand to make everything potentially run even smoother.

The hiring AI gave each candidate a starred rating, one star being the worst, and five stars being the best. However, the company soon realized that there was a problem, specifically with the AI hiring people for more technical roles. Amazon's computer models were trained to "observe patterns in resumes submitted to the company over a 10-year period."⁸ Earlier on in the development process, programmers taught the AI to recognize certain words that appeared on past resumes. However, since most of the sample resumes were from men, it started to favor words that appeared on male resumes more. Men tend to use different language than women on their resumes, and the AI picked up on that since the male resumes were more common. The AI took this data and came to the conclusion that words associated with men were better. It even flagged the word "women's" as undesirable. Therefore, resumes that did not fit into its definition of perfection were penalized.

Programmers at Amazon fixed this specific issue, but since AI is very complicated, it may find other ways to penalize women and marginalized communities. The program was soon

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<https://www.reuters.com/article/us-amazon-com-jobs-automation-insight/amazon-scraps-secret-ai-recruiting-tool-that-showed-bias-against-women-idUSKCN1MK08G>

⁸ Ibid.

disbanded anyway, and Amazon claims that the tool was never used for actual applicants, but there is some controversy with this claim due to mixed messages.

Artificial intelligence is a great tool, but with the wrong algorithms it can cause harm to marginalized groups. Since the data that it bases its algorithms on was created by white men, it inherents the biases from them, even if it is unintended.

Why are most artificial intelligence programs portrayed as women? This goes back to the topic of gender stereotypes and the male gaze. Men are seen as the ones who are interested in technology, while women are often portrayed as less skilled in stem.⁹ There are currently more men working on artificial intelligence, which means that there are less opportunities for them to brainstorm with women.

The AI chatbot ALICE is portrayed as a woman. This program is similar to ELIZA except in this instance her webpage has a picture of a woman who is conventionally attractive.¹⁰ The image shown has nothing to do with the functionality of the program, and only serves as a cosmetic decoration to potentially draw in male viewers who were the primary audience at the time of its release. ALICE is an early example of AI being portrayed as female due to male desire.

In society and pop culture, women are typically associated with the roles of personal assistants, secretaries, receptionists, and other service occupations.¹¹ This concept overlaps into our technology. For instance, the popular Apple software Siri reminds the user of appointments, changes the calendar, helps track down information, and overall, helps organize the users' life.

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<https://theglobalobservatory.org/2023/03/gender-bias-ethical-artificial-intelligence/#:~:text=The%20tendency%20to%20feminize%20AI,of%20female%20names%20or%20pronouns.>

¹⁰ <http://news.bbc.co.uk/2/hi/technology/3672424.stm>

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<https://www.geekwire.com/2016/why-is-ai-female-how-our-ideas-about-sex-and-service-influence-the-personalities-we-give-machines/>

This is very similar to the job of a receptionist or personal assistant, a role that is typically associated with women. Siri also has a default female voice, which further proves this uncanny connection.

Women in service roles are unconsciously associated in people's minds. Those using programs with female AI are likely to not make this connection because they are used to this societal norm. While this may seem like not a particularly important issue, it is another way that society objectifies women. The unfortunate truth is that no matter how forward-thinking these artificial intelligence innovators believe they are, they are actually reinforcing these outdated societal norms.

Representing AI as female may also have more insidious consequences. There have been some developments in the sex-bot industry such as virtual reality experiences with AI that simulate sexual intercourse with women. There are far fewer developments with male AI in this regard. This may lead to people forming social connections with AI instead of forming relationships with other people. Society is more accepting of people's sexual and romantic orientations, but falling in love with an AI is a whole different concept.

Sexual actions with artificial intelligence may also potentially lead to men knowing less about consent. In theory, an AI will say yes to any demands that a man may have, as long as it's within the capabilities of its software and hardware. If young men are introduced to technology like this, they may not learn the proper social boundaries that are needed in a real relationship, since they will be used to getting what they want, when they want.

Female AI in Dystopia

The film *Metropolis*, which was one of the first portrayals of artificial intelligence in film, represented the AI through a feminine form. The robot was created as a replacement for the inventor Rotwang's dead wife, and as a tool to destroy the city of Metropolis. Why was she portrayed as a woman?

A theme that will come up is that artificial intelligence that is portrayed as feminine always has some sort of sexual or caretaking purpose. In *Metropolis*, the robot is used as an evil seductress who wants to take over the world. She woos the main character, Freder, and tricks him using sexual means. Her character falls right into the stereotype that for a woman to gain power, she must use her "powers of seduction" to trick the men in power.

This stereotype is found all across the media, not just in the dystopian genre. One example of this is Black Widow from the Marvel franchise. She is portrayed as a powerful female superhero, but much of her success comes from her seducing the male characters with her flirty personality and appearance. Her role in the franchise has evolved, but it is difficult to forget the toxic and sexist origins of the character. This connects to many female AI characters, which achieve their goals through sexual and romantic means.

Artificial intelligence in media, when portrayed as a woman, almost always is there to represent a romance or a caretaking role. An example of this is the android character Kara, from the video game *Detroit: Become Human*. The game takes place in a near future dystopian America, where artificially intelligent robots called androids are widely available to the public, and have taken over many jobs. The game centers around three androids: Markus, Connor, and Kara. Markus and Connor both take on more action oriented roles in the story: Markus is a revolutionary that fights for the rights of androids, and Connor is a detective that investigates

crimes. Kara is the only female-presenting main character. Her role is to be a caretaker, and that is exactly what she does. She protects a little girl named Alice, and acts as her mother throughout the game. The question is: why is the only female main character put into this caretaking role?

Kara is in this role for many potential reasons. Women throughout history, in the male gaze, are meant to either be attractive or a mother. Female AI in media are often given a romantic or caretaking plot, while male AI are given badass or intellectual storylines. Kara slides right into that stereotype, and the creators of the game made no effort to make her unique outside of these aspects. In a universe where androids are servants, the designers of the androids are likely to create them to fit in with societal norms. The game designers, while trying to make their dystopian world realistic, inadvertently pushed the idea that women need to take these roles.

The female artificial intelligence in the movie *Ex Machina* is also not very thought out, since the AI character also falls into the trap of existing to “be sexy.” The robot character Ava has a lot of striking similarities with the robot woman from *Metropolis*. The creator of the show, a man, tried to make a point about how women are culturally viewed in society, by saying that the lead male character, Caleb, would want to save her from her creepy and evil creator. However this point is negated, since the way Ava escapes is through flirting and being a seductress.¹² Her character development and storyline are both reduced, since they rely on her appearance and flirtatious actions.

A more extreme example of female AI in a dystopian setting is from the movie *Austin Powers: International Man of Mystery*. In this movie, the main character Austin Powers encounters several beautiful women. These women are revealed to be AI and are hypersexualized. They are dressed in lingerie and their breasts are able to fire bullets and release

¹² <https://www.wired.com/2015/04/ex-machina-turing-bechdel-test/>

knock-out gas. While the movie is silly, it was a global hit, and the sexualized view of AI likely inspired many dark fantasies across society.

Female AI in dystopian media can be an issue, because it continues to propagate the negative and sexual stereotypes of AI portrayed as women. To fix this, these female AI characters would need to be written in a way that does not objectify them. Their plots should not be watered down compared to storylines containing male AI.

The Dystopian Future

If men continue to develop and gain access to greater amounts of sexualized female AI, they will inevitably lose desires for real-life relationships. The goal of these sexualized AI programs is to make sexual relationships feel as real as possible for men. For a man who has only experienced these AI programs which do whatever he wants, why would he want to put effort into an actual relationship? Humans are overpopulated, so lack of reproduction is not the issue. The main issue is that humans will develop less connections between each other, and instead develop more connections with technology. This could cause them to ignore the problems currently happening in the world, such as in the movie *Ready Player One*, where people try to escape society with virtual reality.

AI is often portrayed as female, which is alarming. While it is great to have women represented, this representation is often not made by women themselves. Men still dominate the STEM field and dominate the construction of AI. Algorithms and designs are inherently biased towards what these men think, even if they have the best intentions. To fix this issue, it would be valuable to bring in more women researchers and programmers in order to gain alternate perspectives on the creation of AI.

AI is becoming self-learning. This is dangerous because much of artificial intelligence still objectifies women. Data that is being collected for AI creation is disproportionately based on information from men. AI does not have morals or empathy. It takes the data that is given and bases its definition of perfection on that, as shown through the Amazon incident. Because there were more male applicants, the Amazon AI associated being male with being a better fit for the position. Artificial intelligence does not see the value in diversity because it does not understand that including a wide range of perspectives could lead to stronger results in the workplace.

In a potential dystopian future, if AI is not regulated enough, it could teach itself more dangerous concepts based on disproportionate data. AI might consider women being a poor choice for a workplace, and may revert to previous cultural norms, such as women taking care of the home and men going to work. This would be based on the data it is given. Because the data is still outdated, this can lead to a future where women are not hired for certain jobs. Alternatively, this idea could be turned around where men may not be considered for positions such as nurses, caregivers, teachers, or even stay-at-home fathers. While this seems excessive, this is a potential dystopian future if AI is not regulated properly and diversely.

What are the connecting points between all of this? Artificial intelligence is a common topic in today's workplace conversations and media. People are afraid of their jobs being replaced by AI. Students use ChatGPT as a tool for school and sometimes to cheat, and companies are beginning to utilize AI in their systems.

People are afraid of a future where AI has taken over all parts of society. Women are especially afraid of their rights being taken away, which is a huge issue in 2023. Civil rights are being stripped from everyone, especially women. This is happening because of the older generations' outdated ideas of how society should function. AI is currently running mostly on

similar outdated information. While AI is still a newer type of technology, it nonetheless takes on the ideology of previous age groups. To fix this, it is important for women to get more opportunities in stem fields, so that the artificial intelligence researchers can be more diverse. That way, if AI inevitably becomes smart enough to think on its own, at least its data will be unbiased and fair to as many groups as possible.

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