



Title: *AI-Artificial Intelligence and the Growth of the Creative Potential of Designers in the Fashion Industry*

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AI-Artificial Intelligence and the Growth of the Creative Potential of Designers in the Fashion Industry

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Abstract

Artificial intelligence (AI) in the 21st century has reached a high level of use and is now an integral part of every industry, or of the way a business is functioning. The fashion industry, being one of the most variable industries in the world, had no way of making an exception from the use of Artificial Intelligence. Starting from the idea, and product development and up to mass production business in any industry. The fashion industry is no exception. From product development to robotic manufacturing, AI has made its way to almost every segment of the fashion value chain. Fashion is a trend that has its own story evolving as ideas are recycled or given new interpretations. It's a phenomenon associated with the pursuit of perfection. Fashion has been around, for as long as humans can remember. It took off when consumerism became prevalent in the 19th century. This was also the time when social scientists started paying attention to fashion. Fashion is all about what's considered trendy and appropriate in a time and situation. A certain group of people known as fashion leaders play a role, in shaping these trends. They have a status that allows them to determine what's fashionable and others follow their lead. Fashion used to be a privilege that only a select few could enjoy. However, in today's society, economic progress has opened up the opportunity for a large number of people, from countries to actively participate in fashion competitions. It's not about wealth though; people now have psychological freedom and the emergence of new communication methods has made fashion even more significant in our lives. This article delves into the impact of intelligence on the rise of designers, in the industry exploring how it enhances and automates their creative process. Fashion needs followers, but it is also necessary for some people to be out of fashion, as not everyone, or everything, can be 'in fashion'. When something is too common, it can be replaced, otherwise, fashion cannot be used to differentiate between people. Fashion design is well-accepted as a career option. A very large number of institutes exist around the world, offering courses in various fields of fashion. The number of students who consider fashion as a serious career has continued to grow over the years, not limited only to people who have studied fashion, but we can have people who have studied other professions but find themselves very well in the fashion industry. In such a diverse market, what makes the difference in the industry is the designer's ability to keep up with the times. Artificial intelligence has brought a variety of artistic creations, allowing everyone to express their style. Regardless of which of these creations have the potential to find real application in the real world.

AI research has created techniques based on probability and economics to deal with ambiguous or partial information. The "combinatorial explosion" that occurred when the problems got bigger and the machines become exponentially slower made the early algorithms unsuitable for handling large argument problems. They address the majority of their difficulties with snap decisions based on intuition. Conditional statements, conditional expressions, and conditional constructs form the foundation of the computer language. A popular construct in many programming languages is the if-then (sometimes known as if-then-else). This fundamental boolean condition can be resolved by a computer. It is predicated on the fundamental principles of what is True or False. On the other hand, this sentence alone, along with the If and Then that surround it and the consequences that follow, comprise a conditional statement that lacks intrinsic value but has an internal meaning (like expressing a coherent logic rule). ((n.d.))

Keywords

Artificial intelligence; design; fashion industry; optimization; product development

Introduction

Referring to the explanation from Wikipedia: "A fashion designer conceives clothing combinations of line, proportion, color and structure. While sewing and modeling skills are helpful, they are not a prerequisite to successful fashion design." (Wikipedia, n.d.) A designer is the creative mind behind any outfit, be it a high-fashion outfit a pair of jeans, or a casual shirt. They conduct research, develop a concept and vision for the type of person they would like to dress, create a visual image of their concept through sketches, and oversee the various design and manufacturing processes that bring their sketches or designs to life in the form of a three-dimensional garment that fits their muse or target market. In other words, a designer is the "brain" behind every piece of clothing produced. He/she sees the finished garment in his/her mind, documents it on paper in the form of a sketch (or covers it on a mannequin), and gathers together a strong team of skilled people to help him or her build it. of his idea in a "wearable" or better yet "physical" garment. Their main work is to invent new, unique, and original methodologies, from single pieces such as skirts, jackets, shirts, and so on, to complete combinations of clothing, suits, or glamorous dresses. Fashion designers also need to possess a certain amount of knowledge about various theoretical aspects related to their work, practical skills are not enough for such a profession. A designer visualizes and turns creation into reality. Fashion not only provides a functional purpose but also often includes mysterious aspects of being human and thus encourages people to create emotions and creativity. Our physical appearance but also our spiritual side is greatly influenced by what we wear. This makes the fashion industry very powerful to influence our lives and this makes it necessary to invest a lot in this industry and of course to have direct access to technology, to artificial intelligence. artificial intelligence (AI) is a field of computer science that looks beyond human logic and intelligence. The intersection of fashion and AI is a rich and expansive space that is just beginning to be explored. As AI continues to develop, it becomes more difficult for non-technical followers to understand. The challenge of understanding lies in the way of meaningful developments between these two fields. However, it should be given due importance that the people who adapt to this technology are the first to succeed in this industry.

How is the fashion industry traditionally developed?

Production in the fashion industry includes some very important rules:

- Client request consultation: Designers often receive requests from managers or clients who want them to design special fashion projects or create a new collection. It is the designer's job to meet the client's or fashion house's requirements and create a product design that fits the brand's style, values, budget, and constraints. Clients will include this relevant information in a fashion brief, a document detailing the scope of the project, and other necessary information that a designer needs before starting production.

- Finding inspiration: Fashion is more than just what you wear, but how it is worn and the visual story it tells. Whether designing for someone else's label or making a collection for themselves, designers look to their everyday lives for inspiration. They will draw inspiration from sources such as music, art, history, architecture, and fashion trends. Designers try to discern what current fashion trends communicate about consumer wants and needs to inform their designs.

- Sketching ideas: Sketches help designers mentally visualize designs. Sketches present an idea in a tangible form, giving the image a different perspective. Sketches are the foundation of design; these minimalist, flat drawings can communicate the technical elements of an idea, including darts and seams, sleeve length, overall length, fit, shape, and more. Eventually, these sketches will become a blueprint for the pattern maker to create the first muslin or prototype.

- Design improvement: Many designers use a mood board or inspiration board to improve their design style. These reference points can help organize ideas or inspiration materials and see which creative ideas have the most interest. Photos, magazines, books, and movies are all sources that designers use to inspire their designs. They can also include fabric patterns or textile design ideas to further narrow down their style choices.

- Choice of fabrics: Designers need to choose the right type of fabric to express their design ideas adequately. Sometimes, the fabric will dictate the type of garment the designer makes; Other times, the type of silhouette will inform the fabric selection. Good designers research the weight, thickness, and texture of their fabric selections to better understand how they fit, move, and wrap around the human body.

- Choice of colors: Color is a powerful tool to convey a mood. It's often the first thing people notice when they look at a piece of clothing. Fashion designers must choose the right color palettes to ensure they depict the right mood and story for their clothing. Learn more about how designers create color schemes in our color theory guide.

- Sampling and prototyping: Finally, the designer will finalize their sketches and send them to the model makers for prototyping. Pattern makers create the first garment sample with materials such as muslin, a loosely woven cotton fabric often used to test garment patterns before cutting and sewing the final product. Prototypes aim to capture the spirit of the final garment through their shape, fit, and fabric choice. This sample product marks the first time a designer will see their garment in three-dimensional form, which they can review and modify as needed.

- Assembly of the garment: Construction brings a design to life. The designer must determine the best techniques to use to formally construct their garments, such as stitching, buttons, or zipper selection. These design choices must work within the context of their fashion history. For example, the distressed and

unfinished look works well for a trendy streetwear collection, but may not be the best choice for an elegant evening gown.

- **Wear testing:** Designers often use fashion models to visualize and conceptualize their designs. Models allow designers to see how their garments fit and stretch on a real, three-dimensional person. If wear is a concern for a design, some models will provide feedback on the functionality of a garment's design, such as how it feels in terms of size, texture, or mobility, which can further inform any changes designers need to make. do when creating the final, smooth finish. product. (Alison, 2012, pp. 34-78.)

How will Artificial Intelligence (AI) change the fashion Industry?

The ability of a machine or robot controlled by a computer to carry out tasks typically performed by an intelligent being is known as artificial intelligence (AI). The technology's foundation is explained in this concise definition. Change is an inevitable force that affects all aspects of our lives, including the fashion industry. Artificial Intelligence (AI) is starting a revolution that will transform the way we create, design, and consume fashion.

Here are some ways in which AI is expected to transform the fashion industry:

- **Trend forecasting:** AI can analyze large volumes of data from social media, fashion blogs, e-commerce platforms, and other sources to predict future trends. By identifying consumer patterns and preferences, AI algorithms can provide accurate trend predictions, helping fashion brands and retailers make informed decisions about collections, inventory, and marketing strategies.

- **Design and Creativity:** AI can help fashion designers generate innovative designs by analyzing large amounts of data, including customer preferences, historical trends, and market insights. AI-powered tools can suggest design variations, and combinations and even generate new designs autonomously, increasing creativity and speeding up the design process. Creatives will continue to be the driving force behind fashion, but AI will lead them.

- **Personalized recommendations:** AI can enable personalized shopping experiences by analyzing customer data, including past purchases, browsing behavior, and preferences. By leveraging machine learning algorithms, fashion retailers can provide recommendations tailored to individual customers, increasing customer satisfaction and driving sales.

- **Virtual try-on and fitting:** AI-powered virtual try-on technologies allow customers to visualize how clothing items will look without physically trying them on. Using computer vision and augmented reality (AR), customers can virtually try on different clothes, styles, and colors, enhancing the overall online shopping experience. AI can also help accurately measure body dimensions, facilitating better-fit recommendations and reducing return rates.

- **Supply chain optimization:** AI can optimize the fashion supply chain by improving inventory management, demand forecasting, and logistics. By analyzing data from various sources, including sales, weather patterns, and market trends, AI algorithms can in-

crease inventory accuracy, reduce overstocking or out-of-stock issues, and optimize the production and distribution process.

- **Sustainability and ethical practices:** AI can play a crucial role in promoting sustainability and ethical practices in the fashion industry. By analyzing supply chain data, AI can trace and verify the origin of materials, ensuring transparency and ethical sourcing. AI can also optimize manufacturing processes, reducing waste and improving energy efficiency. **Influencer Marketing:** Last but not most important - AI can help identify suitable influencers for fashion brands by analyzing social media data, follower demographics, engagement rates, and content relevance. By leveraging artificial intelligence algorithms, brands can partner with influencers that match their target audience, leading to more effective influencer marketing campaigns.

Overall, AI has the potential to improve operations, drive innovation, and create personalized experiences in the fashion industry, benefiting both businesses and consumers.

The impact of the use of artificial intelligence in the fashion industry.

Like technology, fashion is forward-looking and cyclical. According to (Fashion United), the fashion industry has a labor force of 3,384.1 million. Its value is equivalent to 3 trillion dollars. That means it corresponds to 2% of the world's Gross Domestic Product (GDP). (United, n.d.)

Based on "The State of Fashion 2023", a report by McKinsey & Company and The Business of Fashion, 75% of retailers plan to invest in artificial intelligence between 2018 and 2023. (McKinsey) It is changing the way the fashion industry will operate in the entire fashion value chain. Delivering a personalized customer experience and better forecasting is just the beginning. Currently, up to 30% of activities in 60% of occupations across all industries can be automated. It will still take time to implement some of this automation and retraining of the current workforce. At this rate, there is no doubt that artificial intelligence will significantly affect the way we work.



Figure 1: Global AI in the fashion market, by Region. (Eden, n.d.)

Advantages and possibilities of artificial intelligence in the fashion industry.

- Increase the user experience.
- Increased production efficiency
- Automation along production, sales, and logistics
- Intelligent forecasts

“Alexa, what shoes go with this dress?”

More and more manufacturers are relying on artificial intelligence (AI), for example, to improve the shopping experience of Online buyers. Classic example: interfaces to digital assistants such as Google Home or Amazon Alexa. Instead of shopping in apps and on websites, potential buyers talk to their digital assistants. They ask the customer a series of questions and send them a selection of suitable products. This makes shopping more intuitive and more individual.



Figure 2: Image source & copyright by Syte.ai

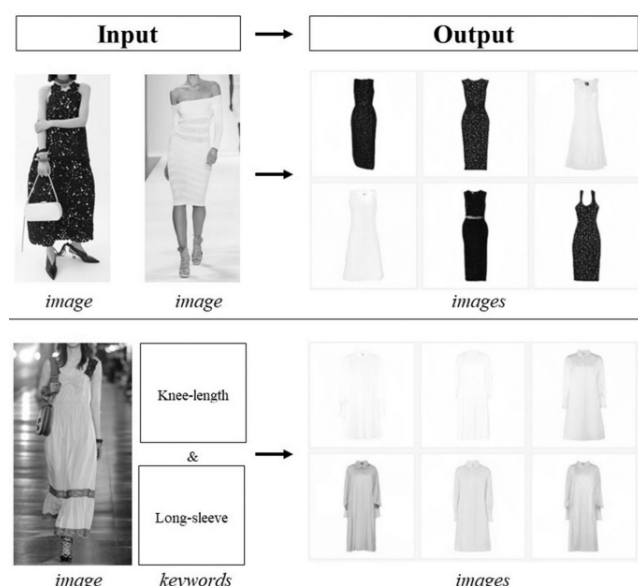


Figure 3: The example of fashion image generation and editing by (Sander, 2022), Vogue

Today, fashion technology is growing at a faster pace than ever. In one form or another, everyone today may have heard or may even have experience in one of the following forms of application of artificial intelligence:

- Robots that sew and cut fabric
- Algorithms that predict style trends
- Clothes to wear in virtual reality
- Smart Mirrors
- Image search
- Data collection
- Chatbox
- Layer and texture

These and many other innovations are an indication of how technology is automating, personalizing, and accelerating the fashion space. Seizing the opportunity to open up more revenue streams and business models, fashion companies are partnering with technology providers, creating startups, and even building their technology. As the industry faces a belated reckoning with its environmental and social impact, processes across the value chain are being examined to reshape itself. It is about how clothes and accessories are designed, manufactured, distributed, and marketed.

“Fashion is part of the daily air and it changes all the time, with all the events. You can even see the approaching of a revolution in clothes. You can see and feel everything in clothes.”
- (Vreeland), former editor, of Vogue magazine

In our daily use of technology, we accumulate a large amount of data that shapes the way we experience retail, enabling the personalization of the experience. This is how we become a known user. In the fashion industry, technology is being built around monthly or annual subscription services. Provide an example of how these order experiences can be applied to e-commerce. While for most fashion brands data is important for driving sales and producing styles that customers want. Using data to keep customers wowed has become part of the DNA of companies like Stitch Fix, Rocksbox, and Le Tote, just to name a few. The appearance of digital products has made it possible for the user to customize the expected consumption experience. They interact with digital products that remind them of what they saw or liked a while ago, but at the same time, they can get to know products that they didn't even know existed until a while ago. This type of customization has gone from a convenience to a necessity. Hyper-personalized recommendations for music, movies, digital other digital products and services have become expected. Netflix, for example, doesn't show you every movie there is when you sign in. Instead, Netflix makes personalized recommendations based on other movies you've watched and specific interests associated with your profile. As this has become the new normal, consumers are demanding it in every aspect of their lives. It gives them a sense of control and reduces choice paralysis. All of these experiences are driven by collecting data about what the user is doing on the site and then turning that into actionable personalization. For a consumer, re-

turning to the fashion retail environment after being exposed to this level of personalization is like entering a world of complete and utter chaos. Suddenly, someone who is used to doing very little to get to a product they want must sift through hundreds or thousands of unwanted items.

The relationship of innovation and technology with creative entrepreneurship. Is technology increasing the number of designers in the market?

Yes, technology has played such a role in the number of designers on the market. In today's era, people are more interested in becoming employers than job seekers. Over time, with the growth of the population, new forms of employment also increase, and at the same time opportunities for employment increase or decrease. However, in the youth of the century we are living in, we noticed that today's young people consider it easier to have their own business and employ others than to work in other people's businesses. In a market economy, this brings about the recognition of the concept of Entrepreneurship. "An entrepreneur is an individual who creates and/or invests in one or more businesses, bearing most of the risks and enjoying most of the rewards. The process of creating a business is known as "entrepreneurship". The entrepreneur is usually seen as an innovator, a source of new ideas, goods, services, and business/or procedures."-Referred to Wikipedia, the free encyclopedia (Wikipedia, n.d.). Entrepreneurs are characterized by their creative abilities, innovative ideas, and new inventions. Entrepreneurship in fashion is just like entrepreneurship in any other field and is no longer limited to stores/boutiques. Different approaches have been developed with the advancement of technology. Designers today are taking advantage of all the benefits offered by modern technologies such as e-commerce, 3D printing, digital avatars, or AI-based marketing strategies. They play different managerial roles - they think of innovative ideas, participate in decision-making, lead in a visionary way, and thus contribute to economic development and a supportive social environment. (Kurz, 2010) In McKinsey's article "Generative AI: Unlocking the future of fashion" (2023), it is stated that "Generative AI has the potential to affect the entire fashion ecosystem. Fashion companies can use the technology to help create better-selling designs, reduce marketing costs, hyperpersonalize customer communications, and speed up processes". Generative AI is the distinction of algorithms that can create new content such as images, text, code, audio, and videos based on existing data. (McKinsey, 2023) While still nascent, generative AI has the potential to help fashion businesses become more productive, get to market faster, and serve customers better. The time to explore the technology is now. Fashion is synonymous with creativity and is also about organization, strategy, and management. Entrepreneurship in the fashion industry is the fusion of business creation and management with specific aspects of the industry. In recent years, the entrepreneurship of the fashion industry has gained importance and so has the competition in the fashion industry across the globe.

Design is getting more attention because of the technology industry.

The introduction of AI technology in the creative industries at a mass scale is fairly recent however it is growing at an impressive speed. The AI related market in media and entertainment was said to have reached \$10.87 billion in 2021. This numbers are expected to grow at an annual rate of approximately 26.9% from 2022 to 2030 translating in \$99.48 billion. Geographically this increased has been located mainly in the developed countries with the North America region accounting for 38% of the overall revenue related to AI models. This impressive raise in popularity can be highly attributed largely to the unique abilities of the technology namely virtual creation of media, composition of highdefinition graphics and formation of real-time virtual worlds. (Wingström, (2022)) Artificial Intelligence (AI) is having a significant impact on the fashion industry, which has increased the creative capacity of designers in several ways. AI opens up new creative options for designers and helps them create new concepts. These technologies also facilitate data manipulation and provide new approaches to difficult problems, allowing designers to explore more creative avenues than they could before. When there is a noticeable change in the form and structure of relationships, we can declare that the technological ecosystem has reached a new stage of cooperation. These days, we can't just think of product design as a necessity for businesses; rather, we see it as something that brings the product to life. (Design, 02.2020) There are no longer long-term answers to business problems when they are approached only from a technological point of view. It's safe to say, in my opinion, that design is now an essential component of problem solving. Why am I saying this? Simply put, in our daily technological lives, we deal with more patterns than ever before. A product's user experience and usability are significantly more important in determining its overall success and that of its customers. The importance of user interface (UI) and user experience (UX) design has increased due to the widespread use of technology. Good design highlights the fact that modern consumer-facing technology is much more elegant than in the past. As digitization efforts are taking over our lives, most businesses have some sort of online presence, and a company's website is often the initial point of contact between a customer and a brand. For this reason, making a strong first impression is essential. And only strong design can achieve this. A large number of software projects are derailed early because their primary focus was on technology rather than usability. Today's users are very intelligent and won't put up with technology that doesn't feel right to them. To create apps that are both tech-savvy and user-centric, design and technology teams must strike a careful balance. Start with design and consider product development to achieve this balance. Business strategy should be shaped in part by design. Technology designers possess the knowledge and skills to understand the business environment and are eager to form strategies by putting themselves in the shoes of the typical custom.

Fashion Content Creation Using AI.

By incorporating AI into the creative aspects of fashion content

creation, the industry could see a revolution in efficiency and innovation. With its AI capabilities to analyze its vast amount, it can predict the right and organized trend in organizing photo shoots, as by analyzing historical data and related information, AI can suggest optimal dates, times, and opportunities. for photo shoots, ensuring the best possible result. But the potential of AI doesn't stop there. By combining conversion rate data with the metadata behind the visual content, AI can provide recommendations for lighting setups that match the right aesthetic or mood. By leveraging the Internet of historical data for high-converting products on, for example, other lighting characteristics, the AI can also suggest optimal lighting setups for new photos. This integration of creativity and data science has the potential to be groundbreaking, as it allows such a data-driven approach to fashion content. Additionally, AI can help make real-time adjustments during photo shoots. By constantly monitoring and analyzing the process, AI can provide immediate feedback and suggestions for lighting adjustments. This empowers photographers and designers to make edits on the spot, saving time and effort during post-production. The ability to receive real-time feedback from AI can greatly increase the efficiency and quality of the photo shoot, ensuring that the desired result is achieved. However, it is important to note that while AI can greatly improve the creative process, the final decisions must still rest with human professionals. AI should be seen as a tool that supports and enhances human creativity and intuition, rather than replacing it. Collaboration between AI and human professionals can unlock new levels of innovation and efficiency in fashion content creation, ultimately leading to a more dynamic and impactful process that results in increased conversion rates and minimized product returns.

Virtual try-on and fitting

Fashion brands benefit greatly from the use of artificial intelligence (AI) in virtual try-ons and fittings. Artificial Intelligence (AI) can produce realistic and customized virtual experiences for consumers by utilizing sophisticated algorithms and computer vision technology. Fashion firms can create a more immersive and engaging online shopping experience for their customers and lower the chance of returns by integrating artificial intelligence (AI) into virtual try-ons and fits.

The following are some ways AI helps with virtual fits and try-ons:

- Measurements and Analysis of the Body. Using user-uploaded photos or videos, AI systems are able to measure and evaluate body proportions with accuracy.
- Digital Fitting Rooms. Virtual fitting rooms, where users may see how clothes would appear on their digital avatars, can be created thanks to artificial intelligence.
- Simulated clothing. AI can mimic the way textiles and apparel items move and wear in a virtual avatar, giving a more accurate picture of how the real garment will act. tailored advice.
- Artificial intelligence (AI) can offer tailored product recommendations for virtual try-ons by examining user preferences, past purchases, and stylistic preferences. This increases the possibility that customers will be satisfied.

- Analysis of emotions and facial expressions. AI can assess how users are responding to various styles by analyzing their emotions and facial expressions during virtual rehearsals. This information can be utilized to enhance suggestions and gain a deeper comprehension of client preferences.

- Integration across platforms. Artificial Intelligence makes it possible to integrate elements for virtual trials on a variety of channels, such as social media, mobile apps, and websites. This guarantees a user experience that is accessible and consistent.

(Banuba, n.d.) is an online platform for practicing. With the aid of an AI recommendation engine and a try-before-you-buy platform, businesses can enhance engagement, reduce returns, and boost revenues.

Textile Simulation Using AI.

Using the parameters indicated by the technology, we will be able to control the textile parameters by evaluating the ability of the textile to be withdrawn and return to the initial position. Or in the worst case, we can estimate the tendency of a textile to tear due to the frictional forces exerted on it. Thus, the textile parameters listed in the software can evaluate the simulation of the textile in the avatar.

How Augmented Reality (AR) is changing e-Commerce.

The impact of Augmented Reality (AR) on e-commerce is revolutionary. By harnessing the power of 3D assets and AR technology, online retailers can now offer customers immersive and engaging shopping experiences that result in higher conversion rates and reduced return rates. For years, the importance of visual content on e-commerce sites has been recognized and used. Including high-quality products, images have always played a crucial role in influencing customer decisions. However, the introduction of elevated 3D and AR assets takes this concept to a whole new level. First, by using high-resolution images and 360-degree views, customers can now gain a full understanding of the product's appearance, structure, and intricate details. This significantly reduces the chances of disappointment during delivery, as customers have a clearer picture of what they are buying.

Second, AR in e-commerce allows customers to virtually try on products such as clothing, watches, glasses, or jewelry. By placing these products in a real "space," customers can visualize



Figure 5: Textile simulation

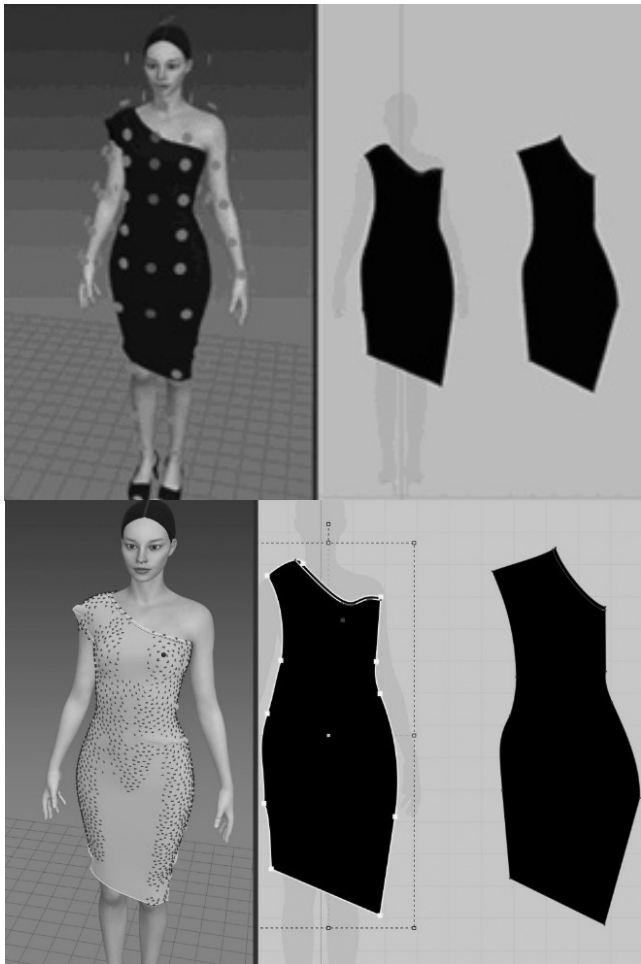


Figure 6: CLO 3D software was used to test this

how they would look and fit in their environment. This integration of 3D models into AR platforms improves the overall shopping experience, making it more interactive and personalized. Furthermore, the connection between AR and social media enables users to share their virtual experiences with friends and ask for feedback. This not only fosters a sense of community but also builds trust and customer satisfaction. Ultimately, using AR in e-commerce creates a better shopping experience, leading to increased sales. To make the shopping experience even more attractive and enjoyable, gamification elements can be



Figure 7: Image from Pexels

included. Interactive product tours and 3D virtual showrooms add an element of fun and interactivity, increasing customer interaction and ultimately increasing conversions. By embracing augmented reality and leveraging 3D assets, online retailers can transform their e-commerce platforms into engaging and informative spaces. These immersive shopping experiences not only increase conversions but also empower customers to make informed purchasing decisions, ultimately leading to higher customer satisfaction and loyalty. (soest)

Limitations of AI in the fashion industry

Since the fashion industry is characterized by human creativity and ideas, there is a need to assess whether AI is in line with the industry's values. Effects on the human workforce: One of the biggest concerns is the potential that the use of AI can replace human labor. With AI algorithms we will be able to do the work of designers, marketers, and other fashion professionals and this increases the risk that some jobs will be lost from the market. This could have a significant impact on the fashion industry as a whole, as well as the wider economy. This is a valid concern and businesses must approach AI responsibly and ethically.

Homogenization: Another challenge is AI's potential to make fashion more homogenized. It is expected that with AI algorithms driving design and marketing decisions, there is also the risk that fashion will become less individual and less creative. This can lead to a decline in the quality of fashion products, as well as a decline in the popularity of the overall industry. This is a real concern and it is up to the industry as a whole to ensure that AI is used in a way that promotes creativity and diversity. Despite these challenges, much of the fashion industry is embracing AI with open arms. With its ability to analyze data and make predictions, AI is offering businesses new opportunities to improve their operations and reach new heights. From improving supply chain management to revolutionizing the design process, AI is transforming the fashion industry and changing the way businesses operate. While AI has the potential to revolutionize the fashion industry, it also presents new challenges that businesses will need to address. However, as with any technology, the benefits and drawbacks of AI in fashion are all a matter of perspective. And with the right approach, businesses can use AI to drive growth and improve their bottom line.

Conclusions

In conclusion, fashion design will have a better future if AI tools are adopted. Ushering in a period of creativity and efficiency through the integration of AI in the design processes of their development as creators and thinkers. With its ability to streamline the workplace and allow designers to unleash their creativity, artificial intelligence technologies have emerged as priceless tools in the creative sector. They are used for everything, including data analysis, design optimization, and concept generation and prototyping. AI can identify customer preferences and trends during collection analysis and make recommendations for developing the best collections. Creative automation will be beneficial for repetitive jobs. Artificial intelligence facilitates detailed attention to the most crucial aspects of design

work. This gives designers the freedom to go beyond the box and come up with ideas that work for their intended audience. As AI technology has grown more accessible, the design process has expanded and inspired exploration among a large number of individuals. Once the products are completed and prepared for photography, artificial intelligence (AI) can scan and evaluate the photographers' suggestions for the ideal lighting, color scheme, and other elements that best showcase a product's appearance. Additionally, fashion firms can stay ahead of the curve by aligning their wares with changing consumer tastes thanks to AI-driven trend research. When creativity and data analytics come together, the precision of algorithms and the elegance of design create a perfect combination. Adaptability is essential in the fast-paced fashion industry, and artificial intelligence (AI) is emerging as a catalyst for agility. Artificial intelligence is driving industry progress, whether through changing marketing tactics, optimizing pricing strategies, or streamlining supply chain procedures. The future fashion scene is expected to be vibrant and ever-changing due to the combination of human brilliance and machine intelligence. The application of AI in the production of fashion products is more than just a technological revolution; it is also a story of seemingly endless possibilities and a monument to the boundless creativity that arises when people embrace the instruments of the future. The fusion of fashion and AI lights the runway of the future, ushering in a time of limitless invention. In a Google form located at the following link <https://forms.yb-jTPbk2iFfXhsPYA>. I conducted an analysis of a few questions to have a better understanding of the relevance, implications, and uses of artificial intelligence in the fashion sector. Following the completion of the academic, study, and perspective sections of the questionnaire on the fashion industry. Academics are a great resource to interview because of their knowledge and experience in the field. I draw the conclusion that AI is being used in a variety of ways (taking into account chat gpt, clo3d, mid-journey, and smart mirror here). The questionnaire was formulated with questions that help to understand how important it was for them to include AI in their daily work and how familiar it was to use AI in their work.:

Are you familiar with the concept of Artificial Intelligence (AI)?

All of the academic and fashion industry respondents who responded to my inquiry about AI and technology use said they had little to no familiarity with the technology. Conclusions about AI's potential primarily reflect the implications that our interviewees thought might arise. Regarding the potential uses of AI in the creative process, the respondents' attitudes were largely positive. Based on the results, we deduced the following consequences for AI: inspiration, quantifiable measurements, time efficiency, professional attitudes, and sustainability.

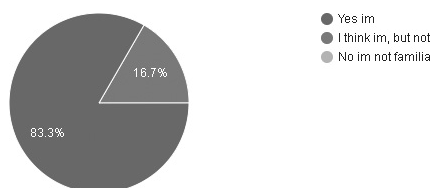


Figure 8: Image from results on Google Form questionnaire .

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