e-ISSN: 2395-0056 p-ISSN: 2395-0072

Research on ethical risks and governance of cultural industry development in the era of artificial intelligence

¹Yuankai Fan , ²Ying Shi

¹Lecturer, Academy of Marxism, Nanjing University of Finance and Economics, Nan Jing, China ²(Corresponding Author) Lecturer, Academy of Music, Nanjing Normal University, Nan Jing, China

Abstract: With the widespread application of artificial intelligence technology in the cultural industry, the trend of digitalization and intelligence in the development of the cultural industry is constantly strengthening. However, the continuous deepening of intelligent transformation has also given rise to ethical issues such as data privacy. intellectual property. algorithmic fairness. human-machine relationships, and social responsibility, which have constrained the healthy and orderly development of the cultural industry. Therefore, attention should be paid to further leveraging the role of ethics in the development of the cultural industry in the era of artificial intelligence, formulating corresponding ethical guidelines and industry norms, resolving ethical risks by strengthening data privacy protection, promoting algorithmic justice, and establishing copyright protection mechanisms, so that the cultural industry can fully utilize the technological advantages of artificial intelligence. create high-quality content, and achieve prosperity and development.

Keywords: Artificial intelligence, Cultural industry, Ethical risks

With the application of generative artificial intelligence technologies such as ChatGPT in the cultural field, the iterative upgrading of traditional cultural industries has been accelerated, and production and distribution methods have been continuously innovated, resulting in increasingly rich product and service content. The emergence of enterprises and products that extensively utilize artificial intelligence technology for cultural creativity has led to a series of ethical risks in the cultural industry, which poses a serious challenge to the high-quality development of the cultural industry. Summarizing the ethical issues related to the development of the cultural industry in the era of artificial intelligence, analyzing the root causes of ethical risks, exploring the ethical standards and governance mechanisms for the development of the cultural industry in the era of artificial intelligence, and providing theoretical basis and practical strategies for the integration and development of artificial intelligence and the cultural industry are inevitable requirements for the prosperity and development of the cultural industry in the new era.

I. ETHICAL ISSUES IN THE DEVELOPMENT OF CULTURAL INDUSTRIES IN THE ERA OF ARTIFICIAL INTELLIGENCE

With the rapid development of artificial intelligence technology, the cultural industry is increasingly relying on intelligent technology to create, promote, and manage cultural products. However, the application of artificial intelligence in the cultural industry has also brought about some ethical issues, which require reasonable guidance and governance in order to achieve the healthy development of the cultural industry and the healthy application of artificial intelligence technology.

Data privacy issues. More and more cultural enterprises are using big data and artificial intelligence technology to improve product quality, promotion effectiveness, and management efficiency. However, this data-driven approach also brings data privacy issues. Cultural enterprises using artificial intelligence technology for personalized recommendations and other services can quickly collect and analyze a large amount of user data, including user browsing records, search history, social media information, and so on. These data often contain personal privacy information, and if leaked or abused, it will pose a threat to users' privacy rights. Assuming that cultural enterprises lack a certain security concept and guarantee technology when storing and managing user data, they may be vulnerable to illegal intrusion or malicious attacks, leading to leaks. At the same time, driven by artificial intelligence technology, cultural enterprises will rely more on algorithms for personalized recommendations, content production, and other work. However, a large number of algorithm practices have shown that uncensored, unrestricted, and unlicensed algorithm applications not only threaten personal privacy, business secrets, and national security, but also easily lead to racism, gender discrimination, and disability discrimination, and breed and amplify other social biases.[1]

Algorithm fairness issue. The decision-making of the artificial intelligence cultural industry is often determined by algorithms, and the transparency of algorithms determines the interpretability of artificial intelligence systems. If algorithms have biases or discrimination, it will

© 2023, IRJET | Impact Factor value: 8.226 | ISO 9001:2008 Certified Journal | Page 287



e-ISSN: 2395-0056 **IRIET** Volume: 10 Issue: 11 | Nov 2023 www.irjet.net p-ISSN: 2395-0072

be difficult to analyze internal operating mechanisms and determine whether their decisions are reasonable, which will have an impact on the fairness of industrial manufacturing and selection. For example, an artificial intelligence system using a black box algorithm may result in unreasonable results in the generation of certain works in the cultural industry. In addition, how to optimize the algorithm rules of artificial intelligence technology is also an ethical issue. Algorithm rules can affect the recommendation methods of artificial intelligence systems, and adjusted algorithms may cause changes in the recommendation of cultural products, thereby affecting the sensory perception of the product audience. At present, many cultural enterprises are facing audience resistance due to poor product promotion. Facebook and Google both believe that their algorithm recommendations play an shameful role in spreading erroneous information and displaying inappropriate content to young audiences. In order to address these ethical issues, the development and application of artificial intelligence technology need to fully consider the principle of algorithm fairness, and promote algorithm transparency through open algorithms, open datasets, and other means.

Human machine relationship issues. The ethical issues of human-machine relationship in the development of cultural industry in the era of artificial intelligence mainly manifest as the relationship between humans and artificial intelligence technology, as well as its impact on the cultural industry. In the cultural industry, the application of artificial intelligence technology may change the role and status of people in cultural creation. For example, in the process of literary creation, artificial intelligence can imitate human writing styles and learn and train from a large number of literary works, thereby creating stunning works. This change may lead to the replacement of some of the author's creative processes, and even the core position of the author throughout the entire creative process may be shaken. [2] Although artificial intelligence currently does not possess human emotions and creativity, it mainly assists in creating initial drafts, providing literary materials, and analyzing language rhetoric in cultural production. However, in the process of human-machine collaboration, if there is a lack of division of roles and balance of responsibilities between humans and artificial intelligence, it may also lead to the degradation of the creative subject's ability to independently create.

Social responsibility issues. Artificial intelligence has significant "instrumental rationality" characteristics, and the lack of human emotions can lead to the cultural industry driven by artificial intelligence focusing more on economic benefits than humanistic care for issues such as public cultural services and human employment opportunities. With the development of AI, the relationship and order between humans and machines in cultural production are being reconstructed, and intelligent products may be influenced by algorithmic biases. There is an overemphasis on commercial interests while neglecting cultural values and artistry, and the generated content lacks diversity and inclusivity. Therefore, it is necessary to examine whether intelligent products comply with social values and violate laws and regulations. The cultural industry bears the responsibility of guiding social values. and the cultural industry driven by artificial intelligence should always prioritize the interests and needs of society and avoid blindly pursuing commercial interests. The artificial intelligence cultural industry needs to become a builder and nourisher of an ecosystem, allowing more enterprises and people to freely develop and realize their own value. In such an ecosystem, the value of human life, the value of existence, and the driving force of life can be more fully reflected, thus achieving the integration of value rationality and tool rationality in the era of artificial intelligence.

ETHICAL GUIDELINES FOR THE DEVELOPMENT OF CULTURAL INDUSTRIES IN THE AGE OF ARTIFICIAL INTELLIGENCE

In the face of ethical issues in the development of the cultural industry in the era of artificial intelligence, it is necessary to formulate corresponding norms and standards, and implement them in practical applications to ensure the high-quality development of the cultural industry.

Safety principles. Faced with the privacy risks posed by the artificial intelligence cultural industry in collecting a large amount of user data, it is necessary to establish corresponding industry standards and ethical norms to ensure the security of artificial intelligence technology in data collection, storage, processing, and use. On the one hand, when using artificial intelligence technology in the cultural industry, it is necessary to ensure the security of the data used. This includes legal and compliant management of data collection, storage, and use, as well as ensuring user privacy and personal information security. When using artificial intelligence technology, it is necessary to establish a security guarantee mechanism and vulnerability management system, promptly identify and fix potential security vulnerabilities, in order to prevent the artificial intelligence system from being attacked or abused. On the other hand, artificial intelligence systems may experience discrimination during the training process, such as discrimination based on factors such as race, gender, age, etc. Therefore, it is necessary to adopt fair and neutral algorithms and data when developing artificial intelligence systems to avoid adverse interventions. Only when the decision-making process of an artificial intelligence system becomes transparent can the relevant groups understand the decision-making process and take responsibility for the results.

The principle of fairness. In the cultural industry, artificial intelligence algorithms should specify corresponding algorithm design and operation principles, improve the interpretability of algorithms, and ensure that algorithm

Page 288 © 2023, IRJET **Impact Factor value: 8.226** ISO 9001:2008 Certified Journal



e-ISSN: 2395-0056 RIET Volume: 10 Issue: 11 | Nov 2023 www.irjet.net p-ISSN: 2395-0072

results are not discriminatory or unfair. The principle of fairness refers to the fact that in the cultural industry, the allocation of resources, the evaluation of creative opportunities and results should be fair, just, and unbiased, and should not be influenced by discrimination or bias in artificial intelligence systems. The first is the fair distribution of opportunities. Artificial intelligence technology is influenced by algorithmic biases, and in the creation and promotion process of music, film, literature, and other fields, it may give more exposure opportunities to certain authors or works based on social factors. The principle of fairness requires the establishment of transparent and fair mechanisms to ensure the fair distribution of creative opportunities and avoid favoritism towards creators or works by artificial intelligence systems. Secondly, the fairness of the evaluation process. Artificial intelligence technology may also be used to evaluate and screen the value of works. To ensure fairness, clear standards and evaluation mechanisms need to be established. fully considering different cultural backgrounds, diversity, and inclusivity, to discriminatory evaluations of specific groups or types of works by artificial intelligence systems. Finally, the fairness of the employment process. The automation process brought about by artificial intelligence has reduced employment opportunities in the cultural industry in terms of production and promotion. Therefore, corresponding policies and measures are also required to ensure the protection of the rights and interests of employees, provide job transfer and training opportunities, and address potential unfair issues.

Respect the principle. Human dignity is not only a condition for the development of technology, but also a principle for its development. While contemporary technology is transforming the world, it is also continuously constructing the essence of human beings. The ethical principles that guide and constrain the development of technology should be the principle of respecting human intrinsic values to the greatest extent possible. [3]Human dignity not only determines the core algorithm of modern law - the normative system centered on rights and freedoms, but also determines the basic principle of modern rule of law - protecting rights while also constraining power. Intelligent technology may lead to a crisis of autonomy for humans, making it difficult to become the free will subject expected by law. In the face of ethical issues in human-machine relations, it is necessary to establish the principle of respect for human-machine relations, safeguard human dignity and rights, and avoid the situation where machines completely replace humans. Firstly, the cultural industry should respect the values and rights of individuals in the application process of artificial intelligence. Artificial intelligence systems should respect personal rights and preferences when providing personalized recommendations and content filtering to users, and should not violate their wishes or be imposed on them. Secondly, the cultural industry should protect the privacy rights of individuals and society in the application process of artificial intelligence. The application of artificial intelligence technology in the cultural industry may require the collection and analysis of a large amount of user data to provide personalized services and recommendations. The cultural industry should establish sound data management and privacy protection mechanisms, clearly define the scope of data collection and use, and ensure the safe storage and processing of personal data. Respect for principles should focus on human rights. In the process of changing the way systems are built, artificial intelligence gradually begins to implant people's thoughts, understand their intentions and emotions, and interact with humans invisibly. The cultural industry should ensure that the application of artificial intelligence technology does not violate or unfairly affect human rights when using it. To using artificial intelligence systems discriminatory filtering and biased judgment, and to avoid using artificial intelligence technology to discriminate or marginalize minority groups.

Interest means that its goal is to achieve the goals set by humanity, rather than pursuing its own interests autonomously. Although artificial intelligence has shown astonishing abilities in certain aspects, it still lacks moral awareness and emotions, only executing predetermined tasks and algorithms, and lacks subjective judgment ability. Therefore, as a limited moral agent, artificial intelligence agents need to bear certain agency responsibilities while fulfilling their functions. According to the theory of role responsibility, when an agent is given a certain ability and role, it should act according to certain guidelines and norms in the process of playing this role, in order to achieve the goals set by humanity, and be responsible for its behavior and consequences. For artificial intelligence agents, although they do not possess true autonomy and moral judgment abilities, they are designed and programmed to complete a series of tasks, including applications in the cultural industry. Firstly, the cultural industry needs to strictly monitor and control artificial intelligence when using it, ensuring that it performs tasks according to established rules and guidelines, and avoiding unethical and ethical behavior. At the same time, the cultural industry should consider the potential risks and impacts it may bring when using artificial intelligence. The algorithms and decisions of artificial intelligence may be influenced by data biases and errors, leading to unfair results. Therefore, the cultural industry should actively take measures to correct these biases and ensure that the application of artificial intelligence is fair and equitable. In addition, the cultural industry should also strengthen the security and privacy protection measures of artificial intelligence. When processing user data and personal information, it is necessary to comply with relevant laws and regulations to ensure user privacy and data security. In addition to regulating and monitoring the use of artificial intelligence, the cultural industry should also actively participate in ethical research and governance of artificial intelligence. This includes actively participating in ethical discussions organized by governments and academic



International Research Journal of Engineering and Technology (IRJET) IRIET Volume: 10 Issue: 11 | Nov 2023 www.irjet.net

e-ISSN: 2395-0056 p-ISSN: 2395-0072

institutions, providing constructive opinions and suggestions for the development and application of artificial intelligence.

III. GOVERNANCE MEASURES FOR THE DEVELOPMENT OF CULTURAL INDUSTRY IN THE AGE OF ARTIFICIAL INTELLIGENCE

Cultural enterprises, as units providing spiritual products and services, bear more important ethical responsibilities than ordinary enterprises. That is to say, cultural enterprises should not only identify themselves as "economic people" pursuing interests, but also as "social people" actively creating social benefits.[4] In response to the ethical issues that arise in the development of the cultural industry in the era of artificial intelligence, it is necessary to develop relevant governance norms and standards, and regulate and govern them. To achieve the integration and co creation of artificial intelligence and the cultural industry, it is necessary to strengthen data privacy protection, ensure algorithm justice, demonstrate subject value, establish copyright protection mechanisms, and strengthen professional ethics education to improve the ethical regulations of artificial intelligence algorithms, enhance the value rationality of artificial intelligence technology, and further promote the prosperity and development of the cultural industry.

Strengthen data privacy protection. To strengthen the protection of user data in the era of artificial intelligence, it is crucial to standardize the behavior of cultural enterprises using intelligent machines to process data. Only through the dual protection of law and technology and effective ethical regulations can we achieve harmonious coexistence of artificial intelligence technology and data security, and better promote the sustainable development of the cultural industry. Firstly, we need to improve laws and regulations. In order to protect the privacy rights of users in the era of artificial intelligence, corresponding laws and regulations should be established to clearly specify the normative requirements for the collection, storage, processing, and transmission of personal data, and to refine the legal standards that cultural enterprises need to follow when using artificial intelligence to process user data. In addition, a series of punitive measures should be issued to address the phenomenon of user data leakage or abuse, in order to effectively curb potential violations and infringements. Secondly, it is necessary to establish industry self-discipline and regulatory mechanisms. In addition to refining relevant laws and regulations, relevant industry organizations and enterprises should also actively participate in the establishment and implementation of industry norms, and develop ethical norms that meet the inherent requirements of the cultural industry in the era of artificial intelligence. These regulations involve various stages of data collection, use, sharing, and destruction, ensuring that cultural enterprises strictly adhere to regulatory requirements in the process of using artificial

intelligence to process user data. The construction of cultural innovation ethics system can effectively solve problems such as algorithmic discrimination, big data fraud, and user privacy leakage in cultural activities.[5] At the same time, industry organizations can also establish self-regulation mechanisms to encourage enterprises to consciously comply with norms and obligations. Once again, we need to strengthen the supervision and accountability mechanism. In order to ensure the effective implementation of privacy laws, regulations, and industry norms, the government should establish relevant functional communication mechanisms and regulatory policies as soon as possible. On the one hand, it should guide and promote the "self purification" movement of self media, and on the other hand, it should establish corresponding accountability mechanisms to create a good operational order for the cultural industry.[6] Relevant departments should strengthen the supervision of cultural enterprises using artificial intelligence to process user data, establish strict accountability mechanisms for specific violations, crack down on algorithms that infringe on user privacy, and ensure that the rights and interests of user data privacy are not violated. Finally, we need to continuously improve data security technology. Data security technology is the key to protecting user data security and privacy. Cultural enterprises and related research institutions should strengthen innovation and upgrading of data security technology, improve data security governance efficiency, and use effective technical means to ensure the safe storage and transmission of user data. For example, quantum encryption technology provides higher security and effectively prevents information from being stolen and tampered with. At the same time, data anonymization and desensitization techniques can be used to separate personal identity information from user data, ensuring user privacy while also improving data utilization efficiency. Strengthen the data access management system and enhance the access to core data.

Ensure algorithmic justice. In the development of the cultural industry in the era of artificial intelligence, algorithms play an increasingly important role and also bring a series of ethical risks. To avoid the emergence of the "algorithm black box", it is necessary to clarify the technical responsibilities that individuals as algorithm subjects should bear, establish a governance system for algorithm management and accountability, and standardize the professional ethics standards of algorithm engineers. The first is to clarify technical responsibilities. Ultimately, algorithms are designed and used by humans, and are a data-driven representation of human thinking. Therefore, it is necessary to curb the power of capital behind algorithms to control the design and development process, so that individuals who create and use algorithms fully recognize their technical responsibilities. From the perspective of consumers, it is necessary to fully understand and understand the principles and functions of algorithms, make reasonable use of technological rights, and avoid



International Research Journal of Engineering and Technology (IRJET) IRIET Volume: 10 Issue: 11 | Nov 2023 www.irjet.net

blind reliance and abuse of algorithms. At the same time, consumers should be responsible for the operation results of the algorithm and ensure that the data and information used are legal and compliant. From the perspective of the national government, in order to prevent the ethical risks of algorithms in the cultural industry, it is necessary to establish a sound governance system for algorithm management and accountability, and intervene or correct infringement possible algorithm behaviors. The government needs to formulate relevant laws and regulations to regulate the application of algorithms in the cultural industry, and clarify the responsibilities and obligations of algorithm development, operation, and supervision. At the same time, it is necessary to establish a specialized algorithm regulatory agency to supervise and evaluate the creation and use of algorithms, in order to timely detect and deal with illegal algorithm behaviors, and guide algorithm technology towards improvement. In addition, improper instructions from users can lead to infringement of artificial intelligence, and the creators, modifiers, and network platforms of algorithms can also lead to infringement of artificial intelligence algorithms. Therefore, it is necessary to clarify the boundaries of rights and responsibilities between algorithm users and algorithm creators, and further demonstrate the product attributes of artificial intelligence algorithms. From the perspective of cultural enterprises, it is necessary to standardize the professional ethics standards of algorithm engineers and ensure that the algorithm programming of cultural products meets the requirements of internal morality rather than simply pursuing efficiency. As the main body directly involved in algorithm development and application, algorithm engineers should adhere to technical integrity, respect personal privacy and data security, reasonably and legally collect user data during the algorithm development and application process, and ensure the interpretability and controllability of the algorithm decision-making process. We should continue to and update technical responsibilities professional norms, take responsibility for the social impact of algorithms, and continuously optimize the social responsibility and ethical level of intelligent machines. Avoid the appearance of 'algorithm black boxes'. The "algorithm black box" refers to the phenomenon where the decision-making process of algorithms is opaque and cannot be evaluated and supervised. In order to avoid the emergence of the "algorithm black box" in the cultural industry in the era of artificial intelligence, the following measures should be taken: first, promote the transparency of cultural industry algorithms, so that users and stakeholders can understand and evaluate the operation results of algorithms. Secondly, conduct algorithm audits and evaluations, and introduce third-party institutions to review algorithms to ensure their fairness and compliance. Finally, encourage open source algorithms, allowing more developers and researchers to participate in the optimization and improvement of algorithms, thereby achieving common progress and innovation of algorithms.

Highlight the value of the subject. Futurist Leonhard once pointed out, "No matter how magical technology is, it is just a tool we use to achieve our goals: technology itself is not the goal we pursue, but the means we pursue".[7] In order to better adapt to the updating and iteration of intelligent machines and algorithm technology, it is necessary to collaboration between cultural promote industry practitioners and artificial intelligence on the basis of improving their professional level and technical ability, highlighting the subject value of human cultural creation activities, and eliminating the phenomenon of artificial intelligence transforming from a creative tool to a creative subject. Firstly, we need to improve the relationship between intelligent machines and humans. Intelligent machines are playing an increasingly important role in the development of the cultural industry. Cultural enterprises can analyze a large amount of data, perform automatic creation, and provide personalized services through artificial intelligence technology. However, technological innovation also weakens the core position of people in cultural creation. With the gradual normalization of human-machine collaboration, we should recognize that the relationship between intelligent machines and humans is not a competitive or even adversarial one, but rather a cooperative and mutually beneficial one. Intelligent machines can help cultural industry practitioners process data more efficiently, improve creative efficiency, and expand creativity, while humans provide traits that cannot be replaced by machines such as creativity, aesthetics, and emotions. The harmonious relationship between intelligent machines and humans can make up for and promote each other, jointly promoting innovation and development of the cultural industry. Secondly, it is necessary to enhance human control over intelligent machines. In order for cultural industry practitioners to better adapt to the development of intelligent machines, it is necessary to strengthen relevant training and education. Relevant training courses can be offered for the application scenarios and operating techniques of intelligent machines, enabling practitioners to better and faster grasp the operating principles, working methods, and scope of use of intelligent machines. Personalized training can also be provided for different positions and fields in the cultural industry to enhance the technical and professional skills of practitioners assisted by intelligent machines. In addition, lectures, seminars, and practical activities can be conducted to deepen communication and cooperation between practitioners and intelligent machines, enhancing understanding and trust. Once again, we need to establish a sense of autonomy and responsibility among people. The purpose of artificial intelligence training and education is not only to improve the technical capabilities of practitioners, but more importantly, to promote cooperation and trust between artificial intelligence and people. Through training and education, cultural industry practitioners can discover the potential value of intelligent machines and actively embrace the development of technology. They can also fully understand the

e-ISSN: 2395-0056

p-ISSN: 2395-0072



e-ISSN: 2395-0056 **IRIET** Volume: 10 Issue: 11 | Nov 2023 www.irjet.net p-ISSN: 2395-0072

shortcomings and limitations of intelligent machines, objectively recognize their important value and accurately position their own dominant position in the wave of intelligence. Finally, we need to standardize the human-machine collaboration platform. The cultural industry has constructed many human-machine collaborative systems and applications, promoting close cooperation between humans and intelligent machines, and promoting the organic integration of intelligent machine technology with the creation, dissemination, and other aspects of the cultural industry. However, from the current perspective, the problems in understanding and applying various moral systems in artificial intelligence can only be solved by enhancing its intelligence and autonomy.[8] In order to maintain a balanced relationship between intelligent machines and humans, maintain the integration of technology and art, artificial intelligence and human intelligence, it is necessary to construct a comprehensive platform management system, standardize the operation and use of human-machine collaboration platforms, and ensure stable operation and efficient services in operation, maintenance, and service.

Establish a copyright protection mechanism. In the era of artificial intelligence, with the continuous development of technology and the digital transformation of the cultural industry, the intellectual property protection of intelligent machine generated products is facing new controversies and risks. In order to effectively prevent infringement and protect the rights and interests of intellectual property owners, it is necessary to take a series of measures in a timely manner, such as improving technical means, promoting monitoring technology, and enhancing legal protection. Firstly, enhance technological means to strengthen intellectual property protection. We need to strengthen the research and innovation of intelligent copyright monitoring systems, achieve automated monitoring of digital cultural products, and timely detect and prevent infringement. A digital rights management system can be widely introduced to control and supervise the use and dissemination of cultural product content digital authentication and authorization. improving the system's ability to obtain more material content from materials generated by artificial intelligence. At the same time, the regulatory authorities of cultural enterprises should improve the copyright registration system, strengthen the registration and management of digital content in smart publications, and enhance the controllability of copyright. Currently, the iterative approach of generative artificial intelligence is mainly based on the generation of content from existing fragments. A cultural product can include dozens of information of creators, some of which are not protected by traditional copyright. To address piracy and tampering, digital watermarking, encryption technology, blockchain can be used to maintain the originality and integrity of intelligent works. In addition, relying on cloud computing, big data, and artificial intelligence technologies, a big data platform for copyright monitoring, registration,

and rights protection can be established, providing content copyright and data services including copyright monitoring and evidence collection, registration and confirmation, rights protection, and authorization management, ensuring effective authorization and supervision of digital content in the cultural industry. Guide the public to fully understand the various forms and important hazards of artificial intelligence piracy dissemination, actively support and participate in intellectual property protection, and jointly safeguard the legitimate rights and interests of intellectual property. Improving the legal protection of artificial intelligence cultural products is an important support for intellectual property protection. The government should strengthen the formulation and improvement of laws and regulations related to intellectual property, clarify the rights and obligations of intellectual property, and standardize the scope and methods of intellectual property protection. At the same time, we will strengthen the judicial protection of intellectual property rights, improve the efficiency and quality of trials, and safeguard the legitimate rights and interests of intellectual property owners.

IV. CONCLUSION

This article finds that when artificial intelligence technology is applied in the cultural industry, ethical issues such as data privacy, intellectual property rights, algorithm fairness. human-machine relationships, and responsibility are prone to arise, which restricts the healthy and orderly development of the cultural industry. Although this article believes that strengthening data privacy protection, promoting algorithmic justice, establishing copyright protection mechanisms, and strengthening professional ethics education can resolve ethical risks, the advent of the artificial intelligence era still requires diversified analysis and examination. Further research is needed on the risk avoidance mechanism of artificial intelligence. For example, artificial intelligence technology can generate a large number of creative works in a shorter time, but it also poses great challenges to the originality of the works. The works generated by artificial intelligence technology need to be learned and trained through a large amount of text data. These works are often generated by simulation algorithms, lacking the intervention of human thought and creativity, which to some extent will hinder the innovative development of culture. The impact of the artificial intelligence era on the cultural industry still needs to be further expanded.

REFERENCES

- [1] Dong Qingling, Zhu Yue. Algorithmic justice and order construction in the era of artificial intelligence. Explore and argue, 2021(03):82-86+178. (in Chinese)
- $_{[2]}$ Yang Qian. Cultural enterprises should bear special responsibilities. Theoretical social monthly, 2017(12):81-85. (in Chinese)

© 2023, IRJET **Impact Factor value: 8.226** ISO 9001:2008 Certified Journal Page 292



e-ISSN: 2395-0056 IRIET Volume: 10 Issue: 11 | Nov 2023 www.irjet.net p-ISSN: 2395-0072

- [3] Li Yaming. Research on contemporary moral norms ethical design of artificial intelligence. Philosophical dynamics, 2023(05):105-114+128. (in Chinese)
- [4] Zhang Yongqi. Ethical risks in the development of Chinese cultural industry and their solutions. Yunnan social sciences, 2017(04):141-148. (in Chinese)
- [5] Xie Xuefang, Gao Jiaqi. The evolution mechanism and advanced mode of cultural industry driven by AI technology and system. Social science research, 2021(02):104-114. (in Chinese)
- [6] Chai Dongdong. The ethical dimension of we-media from the perspective of cultural industry. Gansu social sciences, 2017(05):16-22. (in Chinese)
- [7] Leonhard. Human-machine Conflict: How can humans and the Intelligent World coexist. Beijing: China Machine Press, 2019:29.
- [8] Li Zhixiang. How can an AI be a moral machine? Journal of Shanxi University (Philosophy and Social Sciences Edition), 2023,46(04):62-69. (in Chinese)

Page 293 © 2023, IRJET Impact Factor value: 8.226 ISO 9001:2008 Certified Journal