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Future visions of ai enhancing industries and navigating ethical landscapes

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Abstract

AI has been called a disruptive force across modern technology, cutting across healthcare, management, manufacturing, and creative industries. AI applications include diagnosis and treatment of diseases, automation and quality guarantee at production lines, optimization of network traffic in the telecommunications segment, and the enrichment of artistic creation. Recently, AI has found an increasing integration into power electronics, software engineering, and the oil and gas industry, pumping up efficiency and reducing operational costs. Looking ahead to the future, AI offers enormous potential for improvement in predictive analytics and personalized medicine in health care, the infrastructure of smart cities, and the job market. These also raise significant ethical, social, and technological concerns. Discussing bias, ensuring security, and improving data quality goes hand in hand with the responsible development of AI. Effective policy and regulatory frameworks from all levels and collaboration with international efforts are needed to unlock AI's potential and mitigate its risks, opening the path toward a positive future with AI.

Keywords: Artificial Intelligence; AI Applications; Predictive Analytics; Personalized Medicine; Manufacturing Automation; Telecommunications Optimization; Creative Industries; Power Electronics; Software Engineering; Oil and Gas Industry; Smart Cities; Ethical AI; AI Bias; AI Security; Data Quality; AI Policy; International Collaboration; Job Market Impact

1. Introduction

AI has become among the most impactful phenomena in the contemporary world, revolutionizing many aspects of human life. Whether forecasting disease and recommending treatments or using robots to improve the efficiency of production lines, AI's uses are numerous and unending. This growth has ensured that AI is a crucial component of today's technology, with solutions once imagined only in science fiction. Nevertheless, AI comes with pros and cons, including ethical issues, biases, and security threats that need to be fixed. Showcasing the current uses of AI, analyzing its modern setting, discussing its future, and presenting technology and ethical concerns give a clear vision of AI's opportunities, mandatory responsible further advancement, and intergovernmental cooperation.

2. Current State of AI: Present-Day Applications

2.1. AI in Healthcare

AI has impacted the healthcare sector to great potential in delivering better efficiency in disease diagnosis, treatment, and patient care. Machine learning algorithms and the use of neural networks contribute to a more accurate proportion in diagnosing diseases, especially severe ones, and help in the early identification and formulation of an individual treatment plan. Rong et al. (2020)[1] posit that AI systems provide an analytical procedure that evaluates medical images to identify anomalies the human eye cannot easily detect. For instance, AI is used in predicting the occurrence of epileptic seizures. AI models created by researchers that recognize seizures based on EEG data benefit patients and

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healthcare professionals in informing suitable interventions. This advancement enhances the patient's prognosis and reduces the load on healthcare systems. Therefore, AI in healthcare proceeds to improve medical practices to ensure that they are efficient and precise as needed.

2.2. AI in Manufacturing

AI technologies have made tremendous progress in manufacturing regarding automation and quality assurance. AI technologies are integrated into manufacturing to complement production functions, minimize mistakes, and increase productivity. For instance, robots and AI machines can participate in activities such as producing products with precision, which is very hard for humans to achieve, making the produced products have a standard quality level. According to Orihara, 2021[3], AI diagnosis for defects and possible failures is fed with data by the participants of the production lines. This minimizes time spent on interruptions that would cause shutdowns and enhances the efficacy of such processes. All these bring about cost reduction and quality improvement by increasing the function's productivity, hence the reason for its increased adoption in modern manufacturing.

2.3. AI in Telecommunications

AI technologies benefit the telecommunications sector, especially in the network optimization and customer service improvement departments. AI algorithms can analyze network traffic patterns to ensure optimal bandwidth, kill latency, and foster better service quality (Balmer et al., 2020)[4]. Using AI, telecommunication companies can offer reliable and fast services to customers at all times. Moreover, telecommunications companies apply AI to enhance customer service through chatbots and virtual assistants, which can answer many questions and solve customers' problems. This not only increases the satisfaction of customers but also mitigates the burden on human support staff. For example, AI-based predictive maintenance lets companies identify and resolve problems in the network before the customer even notices, thus ensuring continuity of service. AI's place in the integration of telecommunications is, therefore, very crucial to improved network performance and better customer experiences.

2.4. AI in creative industries

AI renders creative industries by making content and its creation much brighter. Anything effective in manipulation, such as music, artwork, and even literature, has been realized by AI. AI frees the artist or creator to express more critical ideas and provides ample time for the process (Anantrasirichai & Bull, 2020)[5]. In the fine arts, AI can analyze styles and make new art comparable to renowned, well-established artists. A case in point is a way to generate new manga in the stylistic corpus of Osamu Tezuka using AI, which concerns the fusion between traditional artistry and modern technology. The role of AI is diversifying even more in a creative industry that is now presented with outstanding tools to strengthen the in-depth processes of artistic expression and production.

3. Recent Advancements in AI

3.1. AI in Power Electronics

AI significantly impacts the optimization and control systems associated with power electronics. The latter two are inherent sub-processes of the management processes for maintaining and enhancing the efficiency of the power electronic devices and forming a controllable mode of operation. Artificial intelligence procedures such as machine learning and neural networks have recently been implemented to enhance such systems in terms of their efficiency and durability. According to Zhao et al. (2021)[6], AI applications in power electronics have led to prominent enhancements in different life cycle phases: design, control, and maintenance. These phases use machine learning algorithms to predict optimal adjustments of control variables for power converters to improve efficiency and power usage. Also, it can analyze large chunks of data to establish the likelihood of system breakdowns and maintenance being scheduled, consequently minimizing the time spent and the cost of repair on the system. From prognostic and health management to optimal performance control, these power electronic devices are managed by AI systems under different scenarios. Thus, the integration of AI in this sector leads to AI in Power Electronics being a rather significant performance improvement, increasing reliability while the systems are in operation.

3.2. AI in Software Engineering

Software engineering uses AI, especially for debugging and documentation processes. Initially, such tasks were arguably redundant, tiring, and full of human errors, and AI has considerably streamlined such tasks to enhance productivity and the quality of software. According to Barenkamp et al. (2020)[7], AI tools can automate routine tasks in the process of software development, like debugging and generation of documentation. For example, AI-driven systems might go through codebases in search of bugs to fix them. This process reduces the extensive manual testing that is typically

required. Besides the overall documentation that gets created by going through lines of code and project requirements, AI also ensures that developers are furnished with accurate and up-to-date information. Automated over manual processes not only spares time but also provides the accuracy and consistency of the developed software. In this respect, it becomes valid to state that the inclusion of AI in software engineering practice axiomatically gives way to more efficient development cycles, hence higher quality software products.

3.3. AI in the Oil and Gas Industry

AI technologies have been adopted in the oil and gas sector, aiming to improve oil recovery and optimize production processes to enhance resource extraction while keeping operational expenses low and improving efficiency and sustainability in the industry. Li et al. (2020)[8] found that using AI in the oilfield development has led to apparent differentiation in productive dynamic prediction, developing plan optimization, and identifying residuals. For example, geological information can be transformed into the most effective drilling plans by using AI algorithms and increasing recovery rates. Also, the AI systems will monitor the production parameters in real time to achieve the right extraction conditions with minimum losses. Be it estimation prediction or actual real-time control, Artificial Intelligence enhances the quality and effectiveness of processes associated with the exploration and production of oil and gas. It also results in a better and more sustainable management of resources. As such, using artificial Intelligence in the oil and gas industry is undoing significant gains in optimizing production and resource management.

4. Future Prospects in AI

4.1. Healthcare Advancing

AI holds immense potential to revolutionize the healthcare industry through predictive analytics and personalized medicine. These two variables become critical facilitators of early diagnosis, customized intervention measures, and better client experiences. In a plethora of patients' data, AI-driven predictive analytics could predict in the patients' data how a disease could progress and which patient would be at risk to provide treatment before symptoms manifest. For example, AI algorithms could reveal the probability of a patient developing such diseases as diabetes and heart disease and thus help to prevent their development. Moreover, personalized medicine is increasingly feasible as AI makes it possible to process and interpret masses of intricate biological information. From generalized treatment approaches, AI ensures that patients receive the most effective therapies against their respective conditions. Integrating artificial Intelligence into healthcare will improve diagnostic accuracy and treatment efficacy and enhance patient care.

4.2. Smart Cities and Infrastructure

AI is linked to smart cities through technologies applied to traffic management and energy optimization. Such technologies will be cardinal in making cities efficient and green, sustainably accommodating the ever-increasing populations. According to Zhang et al. (2023)[9], AI-driven traffic management systems detect and analyze real-time data to optimize traffic flow, reduce congestion at choke points, and enhance transportation efficiency. For instance, AI can adjust the timing of traffic lights to the current traffic flow conditions, thereby minimizing delays and making journeys much more accessible for commuters. In terms of energy optimization, AI can manage energy distribution and consumption patterns to ensure efficient usage of resources without waste. With increasing urbanization, transitioning to intelligent City infrastructure managed by AI would be reasonably needed to maintain living standards. Accordingly, besides enhancing urban efficiency, applying AI in intelligent cities contributes to green sustainability.

4.3. Impact on Job Market

AI is inevitably going to hit the job market either by creating new jobs or, at the same time, displacing old ones. Conversely, AI automates repeating and routine tasks; hence, automation is more likely to displace workers engaged in highly susceptible jobs. This trend is seen in manufacturing and data entry sectors, where AI systems accomplish tasks more efficiently than human beings. For instance, according to some current estimates, as high as 20% of all existing jobs are susceptible to automation by AI technologies within the next decade. This kind of replacement may impart significant economic and social problems if not handled properly. While AI tends to replace jobs, it also creates new opportunities within emerging fields that require advanced technical skills. Second, because AI systems will have to be developed, implemented, and maintained in many industries, AI specialists, data scientists, and other tech-savvy professionals will grow in demand. In addition, AI itself creates jobs—for instance, AI ethics, AI cybersecurity, and AI policy-making fields, without which responsible development in AI technologies should never be started. Tailor et al. (2023)[10] have(lines) pointed out that estimates say the AI industry will create millions of new jobs worldwide, particularly in the fields concerning artificial intelligence research, development, and application. Job creation at this level is important to the economy in terms of growth and innovation.

In this respect, reskilling and upskilling for the existing workforce has become very imperative to be able to tap fully into newly emerging opportunities. Educational establishments, governments, and business corporations must collaborate on designing programs to train workers with relevant skills for an AI-driven economy. This includes technical skills but also soft skills, like critical thinking and adaptability. Tailor et al. (2023)[10] further state that successful reskilling programs might alleviate the negative consequences of job displacement and make the workforce inclusive and resilient. Under these circumstances, lifelong learning and continuous skills development programs become very important. Although AI brings along challenges to job displacement, it also provides significant opportunities for job creation, given proper reskilling and strategies for upskilling are implemented to prepare the workforce for the future.

5. Ethical and Social Implications

Due to the recent uptick in the advancement of AI technologies, there are fundamental ethical and social issues, such as the bias in AI algorithms, privacy and security concerns, and the general impact of AI on society and their acceptance of it. Prejudice in the algorithms of Artificial Intelligence can indirectly intensify prejudices and unfair attitudes towards a particular category of citizens. Tiwari (2023)[11] notes that the AI system trained under biased data produces biased results that deepen social prejudice and injustices against a specific group. This is especially so in the sphere of employment, police force, and health care since bias leads to prejudice and unfair treatment.

Privacy and security are core issues that must be considered when implementing AI. Most AI systems are very dependent on large datasets and have critical problems with privacy. Considerable accumulation, deposition, and analysis of personal data entail vulnerabilities regarding malicious access and utilization. Tiwari (2023)[11] states that a lot of efforts are required for protection from data leakage, so AI systems should not be able to contribute any more to the negative impact on the privacy and security of individuals. The use of artificial intelligence technologies in people's lives affects their adoption and acceptance. In this regard, public trust defines the social approval of AI within society, which may be compromised in instances like bias, invasion of privacy, or other ways AI is misused. Tiwari (2023)[11] posits increased transparency and accountability in creating and implementing AI systems or applications to lure society's acceptance.

Thus, ethical-social backwash raised by AI calls for a multivariate approach: from creating unbiased AI algorithms to improving data protection and securing them right up to making the AI as open and accountable as possible. These measures will contribute so that developed and fielded AI technologies are at least impartial, fair, secure, and more concerning to society.

6. Technological Issues and Constraints

6.1. Bias and Fairness in AI

Among the main challenges for AI algorithms and concerns related to fairness and reliability is algorithmic bias. Artificial intelligence bias can be introduced at many stages, ranging from data collection to the design of the algorithm and model training. For example, suppose the training data is biased and does not accurately reflect the real richness in the variety of the population that it is to operate in. In that case, these biases will be amplified through the developed AI system. Chen et al. (2021)[12] argue that the most significant source of bias in the built AI system emanates from the imbalance within the training data, which therefore causes under-representation of particular groups of people, hence skewed predictions. This bias class can be seen in areas crucial to our well-being and safety, such as healthcare, hiring, and criminal justice, where an AI decision facing bias can have grave consequences. Some of the strategies include using fairness-aware algorithms that consider demographic attributes during model training to reduce bias. Federated learning also helps to identify and mitigate bias and model explanations that may reduce bias. Federated learning enables AI models to learn from decentralized data sources, ensuring diversity in training data without infringing user privacy. Also, explanatory AI techniques allow developers and users to understand and correct partial decisions.

Therefore, bias becomes a driving factor to iron out and achieve fairness in AI systems through strong data practice and advanced algorithmic techniques that are likely to produce equitable, unbiased outcomes.

6.2. Security Concerns

A critical concern is that this artificially intelligent system technology lends itself to various security threats, significantly affecting reliability and trustworthiness. Many of the vulnerabilities in AI algorithms come from their inherent complexity and interconnectivity, peering into which an attacker would have possibilities for exploitation.

Dwivedi et al. (2021)[13] note that AI systems are vulnerable to adversarial attacks, the attacker perturbing the input data such that it misguides the AI into making wrong decisions. Further, the impact of any such attack will be severe, more so in critical applications such as autonomous driving and healthcare. Moreover, AI systems could turn into a target for data poisoning through intentional corruption of training data, hence skewing the behavior of AI.

Several security measures should be implemented to make AI systems more secure. As Berghoff et al. indicate, this involves multiple security layers along the entire life cycle of AI. This includes robust data validation methods to prevent data poisoning and using adversarial training to improve the resiliency of the AI model to these attacks. Modifying to explainable AI can also help detect and reduce vulnerability by showing how AI makes its decisions. Security issues in AI, therefore, would have to be addressed from a multi-dimensional approach with cutting-edge security measures in place right from the development stage through to implementation to ensure the integrity and reliability of the AI-based system.

6.3. Data Availability and Quality

Any AI system implemented with success has the prerequisites of high data availability and quality. More often than not, the challenges in data curation and access detract from this process and show up in poor performance and low reliability of AI models.

One of the most commented issues in data curation is generating and pre-processing large and heterogeneous datasets. (Willemink et al. 2020)[14]. show that inconsistencies in data formatting, missing values, and the lack of standardization generally obstruct the curatorship process, creating incomplete or biased datasets. This has a substantial impact on the precision and generalizability of AI models. Thirumuruganathan et al[15]. state that data curation is still one of the tasks performed by a data scientist that consumes maximum time and is least favored, needing expensive human operators to keep up with the fast-changing data ecosystem.

More specifically, good data is often hampered by privacy concerns and regulatory constraints regarding access. For instance, according to Willemink et al. (2020)[14], stringent privacy laws apply to the availability of patient data in the healthcare sector due to legal requirements on patient data, which is imperative for developing robust AI applications within medical diagnostics and treatment planning. These challenges, from data collection to implementation, must be dealt with only through collaboration between data providers, regulatory bodies, and AI developers. Overcoming these file-curation and access challenges is therefore of primary importance to give more effectiveness and fairness to AI-based systems.

7. Overcoming Technological Limitations

AI is viewed as a critical technology, and extensive R&D is needed to work out the current technological limitations of that field. At the same time, continuous innovation is required regarding challenges like efficiency, scalability, and integration into several applications through practical algorithms. Interdisciplinary research acts as the critical means for enhancing AI, allowing the infusion of varying perspectives and expertise to bear on developing more robust and innovative solutions. It is expected that joining forces across fields like computer science, neuroscience, and social sciences will yield AI systems that are better to the core—ethically sound, with the added advantage of delivering social benefits. For instance, the existing AI models usually have the problem of not being generalizable and readily adaptable. Kusters et al. (2020)[16] emphasize that there has been a real need for new methodologies to improve the learning of AI systems to become more resilient and versatile across a breadth of domains. More importantly, there is a requirement for frameworks that set societal standards for AI research by being responsive to values, ethics, transparency, and accountability.

From research in theoretical aspects to applications, efforts in R&D are interdisciplinary and pertinent to catalyzing AI technologies that can easily fit into everyday life. Doing so solves complex problems efficiently and ethically. Consequently, the progress of research and development will help to extend the limits imposed on AI by minimizing its drawbacks and maximizing the resulting benefits.

8. Policy and Regulatory Issues

8.1. The Need for Regulation

The fast pace at which AI technologies are being developed requires a robust regulatory framework to ensure ethical, fair, and secure deployment. The regulatory landscape of artificial Intelligence is fragmented, and different regions have

adopted different approaches. According to Díaz-Rodríguez et al. (2023)[17], several countries have started developing specific regulations to deal with AI-related problems, majorly tending towards data privacy, accountability, and transparency; there still exists ample lacuna on issues related to general ethical concerns and how to have blanket oversight across sectors. For instance, existing legislation typically lacks the fineness of grain needed to tackle the subtlety of AI decision-making processes and likely embedded biases within such systems. As Díaz-Rodríguez et al. (2023)[17] points out, many regulations apply to particular uses of AIs, such as autonomous vehicles and predictive policing. Still, no consistent regulatory framework covers all the range of AI technologies. This gap underlines a need for a unified way of regulating AI that can keep pace with rapidly changing technologies.

Aggregating from the national to the international, global standards focusing on harmonization of AI regulations and promoting international collaboration is almost absent. Indeed, addressing the current gaps with comprehensive and adaptive frameworks is required to ensure the responsible development and deployment of AI technologies.

9. International Collaboration

International cooperation is crucial to establishing adequate policies regarding using artificial intelligence solutions that can be standardized to match their global counterparts. Establishing the principles on the international level contributes to minimizing the threats and promoting the sound use of AI worldwide. The absence of harmonization will mean that regulatory arbitrage will be at play, and this refers to a situation whereby firms will take advantage of some of the loose regulations that may be present in some jurisdictions to defeat general attempts at promoting responsible use of AI. Cohesion structures are relevant independently in many respects. According to Petit and De Cooman (2020)[18], stakeholders like the OECD and the United Nations could greatly help create platforms through which the nations engage in discourse and cooperative efforts. They would also train the organization's specific policy and Code of ethics about artificial Intelligence's ethical, legal, and social implications so that the stakeholders can practice good practices and measures. The practice and exchange of information have possibilities for all countries regarding common challenges from the establishment to practice. Also, organizations can use collective approaches to create practical, safe, and sound artificial Intelligence to which society can aspire.

10. Case Studies of Policy Implementation

10.1. AI Regulations by Country

A comparative legal analysis of the existing legislation on AI in various countries is relevant when studying the current legislation and contributes to forming effective legal norms. For instance, the EU has formulated general legal frameworks for AI that are concerned with its ethical aspects and the ability of an AI system to explain itself. Perucica and Andjelkovic (2022)[19] state that the EU high-level approach implies that sustainability by design means that AI systems must be designed sustainably, as concerns the environmental and ethical aspects from the beginning. This framework does work in governing AI, and it has best practices that can be followed in other regions of the world. They are mainly used for economic development and social welfare by the Indian government through its line ministries. Based on the document – National Strategy for Artificial Intelligence – the author, Chatterjee (2020)[20], examined how India is preparing for the security, privacy, and governance of AI as the country aims to reap all the benefits of the technology. However, it also raises the idea that the use of this strategy is dynamic and needs to be updated frequently because of new technologies. These examples prove that it is necessary to adopt national procedures tailored to national practices while complying with the standards of international organizations. Therefore, other nations must take note of the EU's clear ethical framework and India's moderation in linking growth with governance while developing AI regulations safeguarding societal values without binding on the innovation door.

11. Conclusion

In conclusion, AI has become so pervasive across industries that it brings manifold developments and challenges related to bias and security threats. AI has a future that will bring more transformative impacts across sectors, requiring robust regulatory frameworks and multi-state cooperation in the quest for ethical use. It is a roadmap toward responsible AI development, where ethical ramifications would be mapped out along with transparency and accountability. By doing this, AI's potential could be harnessed for the betterment of society while mitigating risks and ensuring beneficial outcomes that are equally shared among all.

References

[1] Rong, G., Mendez, A., Bou Assi, E., Zhao, B., & Sawan, M. (2020). Artificial Intelligence in Healthcare: Review and Prediction Case Studies. Engineering, 6(3). https://doi.org/10.1016/j.eng.2019.08.015

[2] Yin, J., Ngiam, K. Y., & Teo, H. H. (2021). Role of Artificial Intelligence Applications in Real-Life Clinical Practice: Systematic Review. Journal of Medical Internet Research, 23(4), e25759. https://doi.org/10.2196/25759

[3] Orihara, R. (2021). Applications of AI Technologies in Flash Memory Business. 2021 5th IEEE Electron Devices Technology & Manufacturing Conference (EDTM), 1–3. https://doi.org/10.1109/EDTM50988.2021.9421020

[4] Balmer, R. E., Levin, S. L., & Schmidt, S. (2020). Artificial Intelligence Applications in Telecommunications and other network industries. Telecommunications Policy, 44(6), 101977. https://doi.org/10.1016/j.telpol.2020.101977

[5] Anantrasirichai, N., & Bull, D. (2021). Artificial Intelligence in the Creative Industries: a Review. Artificial Intelligence Review, 55(1), 589–656. https://doi.org/10.1007/s10462-021-10039-7

[6] Zhao, S., Blaabjerg, F., & Wang, H. (2021). An Overview of Artificial Intelligence Applications for Power Electronics. IEEE Transactions on Power Electronics, 36(4), 4633–4658. https://doi.org/10.1109/tpel.2020.3024914

[7] Barenkamp, M., Rebstadt, J., & Thomas, O. (2020). Applications of AI in classical software Engineering. AI Perspectives, 2(1). https://doi.org/10.1186/s42467-020-00005-4

[8] Li, H., Yu, H., Cao, N., Tian, H., & Cheng, S. (2020). Applications of Artificial Intelligence in Oil and Gas Development. Archives of Computational Methods in Engineering. https://doi.org/10.1007/s11831-020-09402-8

[9] Zhang, H., Xu, S., Xing, Z., Li, F., Xin, J., & Zhang, C. (2023). Research on Applications of AI in Wireless Networks. Proceedings of the 7th International Conference on Control Engineering and Artificial Intelligence. https://doi.org/10.1145/3580219.3580226

[10] Tailor, R., Jain, S., & Kamble, A. (2023). A Review paper on the Impact of Artificial Intelligence on the Job Market. International Journal of Advanced Research in Science, Communication, and Technology, 68–73. https://doi.org/10.48175/ijarsct-10724

[11] Tiwari, R. (2023). Ethical And Societal Implications of AI and Machine Learning. INTERNATIONAL JOURNAL of SCIENTIFIC RESEARCH in ENGINEERING and MANAGEMENT, 07(01). https://doi.org/10.55041/ijsrem17519

[12] Chen, R. J., Wang, J. J., Williamson, D. F. K., Chen, T. Y., Lipkova, J., Lu, M. Y., Sahai, S., & Mahmood, F. (2023). Algorithmic fairness in artificial intelligence for medicine and healthcare. Nature Biomedical Engineering, 7(6), 719–742. https://doi.org/10.1038/s41551-023-01056-8

[13] Dwivedi, Y. K., Hughes, L., Ismagilova, E., Aarts, G., & Coombs, C. (2021). Artificial Intelligence (AI): Multidisciplinary Perspectives on Emerging challenges, opportunities, and Agenda for Research, Practice and Policy. International Journal of Information Management, 57(101994). https://doi.org/10.1016/j.ijinfomgt.2019.08.002

[14] Willemink, M. J., Koszek, W. A., Hardell, C., Wu, J., Fleischmann, D., Harvey, H., Folio, L. R., Summers, R. M., Rubin, D. L., & Lungren, M. P. (2020). Preparing Medical Imaging Data for Machine Learning. Radiology, 295(1), 4–15. https://doi.org/10.1148/radiol.2020192224

[15] Thirumuruganathan, S., Tang, N., Ouzzani, M., & Doan, A. (2020). Data Curation with Deep Learning. , 277-286. https://doi.org/10.5441/002/edbt.2020.25.

[16] Kusters, R., Misevic, D., Berry, H., Cully, A., Le Cunff, Y., Dandoy, L., Díaz-Rodríguez, N., Ficher, M., Grizou, J., Othmani, A., Palpanas, T., Komorowski, M., Loiseau, P., Moulin Frier, C., Nanini, S., Quercia, D., Sebag, M., Soulié Fogelman, F., Taleb, S., & Tupikina, L. (2020). Interdisciplinary Research in Artificial Intelligence: Challenges and Opportunities. Frontiers in Big Data, 3. https://doi.org/10.3389/fdata.2020.577974

[17] Díaz-Rodríguez, N., Del Ser, J., Coeckelbergh, M., López de Prado, M., Herrera-Viedma, E., & Herrera, F. (2023). Connecting the dots in trustworthy Artificial Intelligence: From AI principles, ethics, and key requirements to responsible AI systems and regulation. Information Fusion, 99(101896), 101896. https://doi.org/10.1016/j.inffus.2023.101896

[18] Petit, N., & De Cooman, J. (2020). Models of Law and Regulation for AI. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3706771

[19] Perucica, N., & Andjelkovic, K. (2022). Is the future of AI sustainable? A case study of the European Union. Transforming Government: People, Process and Policy, 16(3), 347–358. https://doi.org/10.1108/tg-06-2021-0106

[20] Chatterjee, S. (2020). AI strategy of India: policy framework, adoption challenges and actions for government. Transforming Government: People, Process and Policy, ahead-of-print(ahead-of-print). https://doi.org/10.1108/tg-05-2019-0031