

International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Volume 3, Issue 1, July 2023

Ethical and Legal Challenges in Information System Development and Implementation

Crispin P. Noguerra, Jr.

Faculty, College of Engineering and Information Technology, Surigao del Norte State University, Surigao City, Philippines

Abstract: This paper offers a comprehensive exploration of the intricate dimensions where technology, ethics, and the law converge, dissecting the inherent ethical considerations and legal intricacies. Employing a synthesis of qualitative and quantitative research methods, including literature review, qualitative interviews, case studies, surveys, and legal analysis, the study uncovers challenges encompassing data privacy, algorithmic fairness, regulatory compliance across jurisdictions, intellectual property intricacies, and the significance of user-centered ethical design. The research culminates in the formulation of a comprehensive ethical framework, serving as a pragmatic guide for stakeholders, developers, and policymakers to navigate the multifaceted ethical and legal aspects of information system development. The findings underscore the inseparable link between technological progress and ethical landscape. Amid the juncture of innovation and ethical accountability, the study underscores the continued need for interdisciplinary discourse, industry collaboration, and policy evolution, highlighting the imperative for responsible technological advancement that aligns with ethical principles, safeguarding individual rights, societal well-being, and foundational values.

Keywords: Ethical Challenges, Legal Challenges, Information System Implementation

REFERENCES

- [1]. Duderstadt, J. J., Atkins, D. E., & Van Houweling, D. E. (2002). Higher education in the digital age: Technology issues and strategies for American colleges and universities. Greenwood Publishing Group.
- [2]. Graham, M., & Dutton, W. H. (Eds.). (2019). Society and the internet: How networks of information and communication are changing our lives. Oxford University Press.
- [3]. Hoffman, G. M. (2001). The technology payoff: how to profit with empowered workers in the information age. iUniverse.
- [4]. Irwin, S. O. N. (2016). Digital media: Human-technology connection. Rowman & Littlefield.
- [5]. Raquib, A. (2015). Islamic ethics of technology: An objectives' (Maqasid) approach. The Other Press.
- [6]. Kiss, M. (2017). Impossible puzzle films: A cognitive approach to contemporary complex cinema. Edinburgh University Press.
- [7]. Corea, S. (2007). Promoting development through information technology innovation: The IT artifact, artfulness, and articulation. Information Technology for Development, 13(1), 49-69.
- [8]. Raco, M. (1999). Competition, collaboration and the new industrial districts: examining the institutional turn in local economic development. Urban studies, 36(5-6), 951-968.
- [9]. Zhang, X., & Zhu, T. (2018). Understanding Business–Government Relations in China: Changes, Causes and Consequences. Business, government and economic institutions in China, 3-45.
- [10]. Guo, H., Nativi, S., Liang, D., Craglia, M., Wang, L., Schade, S., ... &Annoni, A. (2020). Big Earth Data science: an information framework for a sustainable planet. International Journal of Digital Earth, 13(7), 743-767.
- [11]. Bashir, S., Dahlman, C., Kanehira, N., &Tilmes, K. (2021). The Converging Technology Revolution and Human Capital: Potential and Implications for South Asia. World Bank Publications.
- [12]. Smith, M., &Neupane, S. (2018). Artificial intelligence and human development: toward a research agenda.

Copyright to IJARSCT www.ijarsct.co.in DOI: 10.48175/IJARSCT-12383



852

IJARSCT



International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Volume 3, Issue 1, July 2023

- [13]. Stark, L., & Hoffmann, A. L. (2019). Data is the new what? Popular metaphors & professional ethics in emerging data culture. Journal of Cultural Analytics, 4(1).
- [14]. Stahl, B. C. (2021). Artificial intelligence for a better future: an ecosystem perspective on the ethics of AI and emerging digital technologies (p. 124). Springer Nature.
- [15]. Cruz, J., & Plaisance, P. L. (2020). DATA ETHICS. Reimagining Communication: Action.
- [16]. Shin, D., & Park, Y. J. (2019). Role of fairness, accountability, and transparency in algorithmic affordance. Computers in Human Behavior, 98, 277-284.
- [17]. Shin, D. (2019). Toward fair, accountable, and transparent algorithms: Case studies on algorithm initiatives in Korea and China. Javnost-The Public, 26(3), 274-290.
- [18]. Hoofnagle, C. J., Van Der Sloot, B., &Borgesius, F. Z. (2019). The European Union general data protection regulation: what it is and what it means. Information & Communications Technology Law, 28(1), 65-98.
- [19]. Dove, E. S. (2018). The EU general data protection regulation: implications for international scientific research in the digital era. Journal of Law, Medicine & Ethics, 46(4), 1013-1030.
- [20]. De Hert, P., & Czerniawski, M. (2016). Expanding the European data protection scope beyond territory: Article 3 of the General Data Protection Regulation in its wider context. International Data Privacy Law, 6(3), 230-243.
- [21]. Vellido, A. (2019). Societal issues concerning the application of artificial intelligence in medicine. Kidney Diseases, 5(1), 11-17.
- [22]. Winter, P., &Carusi, A. (2022). 'If You're Going to Trust the Machine, Then That Trust Has Got to Be Based on Something':: Validation and the Co-Constitution of Trust in Developing Artificial Intelligence (AI) for the Early Diagnosis of Pulmonary Hypertension (PH). Science & Technology Studies, 35(4), 58-77.
- [23]. Al-Taj, H., Polok, B., & Rana, A. A. (2023). Balancing Potential and Peril: The Ethical Implications of Artificial Intelligence on Human Rights. Multicultural Education, 9(6).

