

Bioadministration: A Concept for Analyzing Human and Non-Human Organism Interaction in Organizational Studies within the Context of Longevity

Vasco Fonseca¹, Ricardo Zózimo², Maria Helena Monteiro³

Abstract

Embark on a thought-provoking exploration with us as we delve into the fascinating world of bio-administration—a convergence point where the intricacies of biology intersect with the dynamics of organizational management. Authored by an interdisciplinary team comprising the vision of an oncologist, on guidance of an economics professor and a public administration professor, this article sheds light on the emerging concept of bio-administration and its implications for organizational theory and practice. From the fundamental workings of life to the complex structures of human society, join us on this insightful journey as we uncover the synergies between biology and organizational dynamics.

Keywords: *Bioadministration, Commercial Representation, Longevity.*

Introduction

In today's rapidly evolving time, the influence of human behaviour on organizational dynamics is more prominent than ever. Human behaviour refers to the actions, reactions, and interactions exhibited by individuals or groups within organizational settings (Robbins & Judge, 2019). This influence encompasses various aspects, including decision-making processes, communication patterns, and leadership styles, which collectively shape organizational culture and effectiveness (Michael Moran, 2008). Moreover, the role of morality in fostering just and inclusive societies has garnered significant attention in contemporary discourse (Veigunha, 2022). Morality pertains to the principles of right and wrong behaviour that guide individuals' actions and interactions within societal contexts (Shafer-Landau, 2020). In the organizational context, moral considerations influence ethical decision-making processes, organizational values, and stakeholder relationships (Treviño & Nelson, 2020). Amidst these considerations, scientific advancements in artificial intelligence (AI), biology, and bioethics have ushered in a new era of organizational management. Artificial intelligence refers to the simulation of human intelligence processes by machines, enabling them to perform tasks that typically require human cognition, such as problem-solving and decision-making (Russell & Norvig, 2022). These advancements pose novel challenges and opportunities for organizations, particularly regarding the integration of non-human entities into organizational frameworks. The concept of transhumanism is central to this discourse, emphasizing the symbiotic relationship between humans and technology in organizational management. Transhumanism advocates for the enhancement of human capabilities through the ethical application of technology, aiming to transcend biological limitations and augment human potential (Bostrom, 2014). This paradigm shift underscores the convergence of human and non-human values in driving organizational success.

Drawing upon the theoretical foundations laid by scholars like Michel Foucault in biopolitics (Foucault, 1978), this paper introduces the concept of bio-administration as a groundbreaking framework in the field of administration and organizational studies. Bio-administration encompasses the management of organizations in an era where human and non-human values intersect, necessitating a re-evaluation of traditional management models and ethical frameworks. By exploring the implications and contributions

¹ Local Health Unit of Western Lisbon, Department of Oncology, Lisbon, Portugal, Centre for Public Administration and Public Policies, Institute of Social and Political Sciences, Universidade de Lisboa, Rua Almerindo Lessa, 1300-663, Lisbon, Portugal.

² Nova School of Business and Economics.

³ Centre for Public Administration and Public Policies, Institute of Social and Political Sciences, Universidade de Lisboa, Rua Almerindo Lessa, 1300-663, Lisbon, Portugal

of bio-administration, this paper aims to advance management theory and practice into uncharted territories, shaping the future landscape of organizational management.

Discussion

The Relationship Between Morality and Behaviour in the Ethos of Organisations

The history of organizations offers valuable insights into their survival and resilience the past elucidates the reasons for organizational success, serving as a guiding framework for future design (Runeiman, 2016). The profound historical influence of the Catholic Church over the past two millennia serves as a remarkable example of organizational success in the Western world, which provides an insight into the human condition, detailing human behaviour and its appropriateness, to enhance our moral understanding of how individuals should interact (Neiman, 2023). The term "human condition" refers to the fundamental aspects of human existence, encompassing both universal and individual experiences. It encompasses our physical, emotional, psychological, and social dimensions. Key elements of the human condition include mortality, suffering, consciousness, self-awareness, and the search for meaning (Kagan, 1992). Within the context of the Bible, this encompasses various aspects of human life, including emotions, relationships, mortality, and the pursuit of meaning and happiness. Human behaviour encompasses the actions, reactions, and conduct exhibited by individuals or groups in response to internal and external stimuli (Bednarik, 2016). The Bible serves as a moral guide, shaping our understanding of appropriate behaviour based on its teachings and principles (Rome call for ethics, 2020). Appropriateness of human behaviour refers to the alignment of actions with social norms, ethical standards, and cultural expectations. It involves assessing whether a particular behaviour aligns with accepted standards of conduct in a given context (Henricson, n.d.).

The Enlightenment era envisioned a newly ordered world with Europe as its cultural model with science in the center of its values (Neiman, 2023). This epoch marked a shift in societal paradigms, emphasizing reason, individual rights, and progress. The ideals of the Enlightenment laid the foundation for the formation of liberal democracies, which continue to shape state values in present times (Neiman, 2023). Machiavelli's insights and the Enlightenment's influence on societal structures highlight the significant impact of historical philosophical perspectives on the evolution of governance. In the present age, understanding the historical roots of political thought becomes crucial for envisioning equitable and just societies. With a government pledge taken on the Bible, the USA aligns itself with a historical and moral framework that has significant implications for the shaping of societal norms and values with the integration of the scientific values of the enlightenment (Veiguiha, 2022).

The increasing influence of human behaviour in shaping organizations, coupled with the escalating role of morality in fostering inclusive societies, poses a new challenge (Rawls, 1971; Sen, 2011). Human behaviour in shaping organizations refers to the actions, interactions, and decision-making processes of individuals within organizational settings, which collectively influence the structure, culture, and functioning of those organizations (Robbins & Judge, 2018). It encompasses various aspects such as leadership styles, communication patterns, organizational culture, and employee motivation, all of which play a crucial role in determining organizational outcomes. This article explores the implications of scientific advancements in AI, biology, bioethics, and collaboration with non-human entities, on sustainability and the future of humanity. It raises critical questions about the incorporation of these concerns into societal structures, the potential consequences of widespread transhumanism adoption, and the role of public policy in addressing these budding issues. Transhumanism is a philosophical and cultural movement that advocates for the enhancement of human capabilities through the use of technology and science, with the ultimate goal of transcending the limitations of human biology (Bostrom, 2014). It involves the exploration and potential implementation of technologies such as genetic engineering, artificial intelligence, and biotechnology to augment human physical, cognitive, and emotional capacities (Fonseca, 2021). The consequences of transhumanism refer to the potential ethical, social, and existential implications arising from the widespread adoption of transhumanist technologies and ideologies (Fonseca, 2021). These consequences may include issues related to equity and access to enhancements, the alteration of human identity and autonomy, the exacerbation of social inequalities, and the destabilization of existing ethical frameworks (Savulescu, 2016).

Additionally, transhumanism raises profound questions about the nature of humanity, the boundaries of personhood, and the long-term sustainability of human civilization in the face of rapid technological advancement. At the heart of this discussion lies the emergence of a groundbreaking concept: bio-administration, which encapsulates the integration of human and non-human values in organizational management. In politics, the contrast between bio-conservatives and bio-transhumanists reflects two different perspectives on technological advances in human biology. Bio-conservatives tend to take a cautious approach, towards technological advances in human biology. They are typically concerned about the potential negative consequences of such advancements and advocate for maintaining ethical boundaries and limits. Bio-conservatives often emphasize the need to prioritize ethical considerations, such as safety, privacy, and autonomy, when developing and implementing new biomedical and technological interventions. Meanwhile, bio-transhumanists embrace the transformative potential of technology, seeking to improve the human condition. They advocate for responsible biomedical and technological interventions aimed at improving human capabilities and overcoming biological limitations (Browne & Clarke, 2020). Bio-transhumanists believe in the possibility of using technology to enhance human physical, cognitive, and emotional abilities, ultimately leading to the evolution of humanity into a more advanced species. These visions reflect a debate about the ethical and practical limits of scientific and technological progress (Jennifer et al., 2022). Fukuyama discusses issues related to bioethics and the social and political implications of technological advancement in his work "Our Posthuman Future". This theme is also addressed by contemporary authors such as Yuval Noah Harari, Julian Savulescu, and Michael Sandel.

The Risk Society Provides a Framework to Analyse Complex Questions Related to Organizations

The suggestion that liberal democracies represent the zenith of organizational culture requires consideration of the consequences of this assertion in the context of advancing technologies and modern issues. "Risk society" by Ulrich Beck, refers to a contemporary social structure characterized by the omnipresence of risks stemming from technological advancements, globalization, and environmental degradation (Ferrão, 2018). In this paradigm, risks are not only present but also amplified due to interconnectedness and complexity, necessitating new forms of governance and risk management more adapted for the political analysis of the field of bio-administration. The integration of new technologies such as artificial intelligence (AI), biotechnology, and digital innovations undoubtedly holds profound implications for organizations in terms of productivity, efficiency, and competitiveness (Adeyeye, 2019).

We are prompted to question how future societies with both humans and non-humans will be organised and whether current rules align with new issues. These aspects also contribute to the broader narrative, urging readers to consider the profound implications for organizations, society, and the future of humanity in a world dense with unprecedented advancements (Kissinger, 2021). For instance, what are the broader societal implications of these advancements? How will they reshape industries, labour markets, and social structures? Moreover, as organizations harness these technologies to optimize performance and streamline operations, what are the ethical considerations surrounding data privacy, algorithmic bias, and job displacement? How will society address the widening gap between those who have access to these technologies and those who do not? Furthermore, how will emerging technologies like genetic engineering, nanotechnology, and virtual reality redefine what it means to be human? What ethical frameworks will guide the responsible development and deployment of these technologies to ensure that they benefit all members of society? And perhaps most importantly, how can we collectively prepare for and adapt to the uncertainties and challenges that lie ahead? These questions underscore the need for interdisciplinary dialogue and collaboration among policymakers, ethicists, scientists, and industry leaders to anticipate and address the complex implications of technological progress. As we stand on the cusp of a new era defined by innovation and disruption, it is imperative that we critically examine the implications for organizations, society, and the future of humanity, ensuring that we steer this transformative period with wisdom, foresight, and compassion.

At a micro level, organizations face a pressing inquiry: how to integrate sustainability into design while dealing with the advancements in AI and the values of transhumanism. This raises a new realm of bioethical questions regarding the moral implications for humans in a future where politics and AI intersect. In the age of AI, bioethical concerns are emerging that question the creation of life, man's role as a creator,

procreation through heterosexual intercourse or other forms of artificial means, the creation of non-human life, and societal reorganization where family is no longer paramount (Kissinger, 2021). This also raises questions about the replacement of human biological connections with new bioethical principles adapted to a changing social context (Bostrom, 2014). Considering this context of the construction of societies, the dual pathways of assimilating moral principles or integrating with nature, while presenting possibilities, raise important questions about human nature. We are forced to wonder what defines human nature and how it intertwines with societal structures (Kissinger, 2021).

Bioadministration as new concept in the field or organisations in the field of complex health questions as longevity

The importance of biology in the study of organizations The study of the cell brings a new, more specific vision than the study of the human being in a macro way (Fonseca, 2021). Moving towards genetic interventions, we are faced with even more apparent ethical implications (Fonseca, 2021). Questions arise about the boundaries of individuality and the extent to which genetic interventions may influence or redefine what it means to be uniquely human. Furthermore, these genetic interventions are capable of enhancing our capabilities and pushing the boundaries of our inherent capacities. This adds another challenging layer of ethical questions regarding the very essence of human potential (Fonseca, 2021). Adding a philosophical touch to this debate, consciousness and spirituality are considered omnipresent in human beings, contributing to our sense of self and individuality. Both elements are unattainable by AI as they require an unconscious association with something greater. This makes us wonder whether these elements, deeply inherent in human nature, could be the keys to achieving and preserving human individuality amidst the fast-paced technological advancements.

The integration of humanity and AI, coupled with the manipulation of human biology, prompts a re-evaluation of organizational design (Fonseca, 2021). The symbiotic integration of humanity and AI is causing a paradigm shift, challenging traditional organizational structures and demanding dynamic responsiveness to technological advancements. Additionally, the manipulation of human biology introduces further complexity that organizations must consider in order to remain relevant and sustainable in the future. Sustainability, whether regarding resource use, planet Earth, or human development, emerges as an important perspective for evaluating organizational sustainability. Organizations are forced to consider not only their ecological footprint but also their role in fostering societal well-being and human development. Public policies play a pivotal role in steering societies towards sustainability in the face of AI advancements. The evolving dynamics of the world demand a recalibration of policies, with a particular emphasis on efficiency guided by newly defined bioethical standards. Moreover, private organizations find themselves at a crossroads where adaptation to new technologies is not merely a strategic choice but an existential imperative. Those who embrace and integrate these technological shifts will become not only innovators but also crucial contributors to the sustainability narrative. However, for those resistant to change, the risk of being left behind looms over their heads, emphasizing the urgency for organizational agility and responsiveness. The quest for human longevity, intertwined with AI intervention, sparks global debates on policies and their ethical dimensions. The question now is whether the ethical responsibility of governments is similar to that of private organisations and where the human quest for longevity ends. The sustainability of aging policies with the intervention of AI models that will shape the future of healthcare, though tempting and essentially a collective pursuit of all states, poses a threat to human individuality's respect in the face of human optimisation. More importantly, who gets to hold the reigns of this future where we may be altering human beings? Striking a balance between collective pursuits and individuality becomes central in this pursuit of human optimization.

Transhumanism aims to enhance human capabilities through technology and biological interventions, but this pursuit raises ethical, social, and existential dilemmas. Transhumanism aims to enhance human capabilities through technology and biological interventions, but this pursuit raises ethical, social, and existential dilemmas. Transhumanism aims to enhance human capabilities through technology and biological interventions, but this pursuit raises ethical, social, and existential dilemmas. It is important to consider the potential risks associated with genetic engineering and cognitive enhancements (Fonseca, 2021).

Longevity and transhumanism intersect in academic discourse, exploring ways to extend human lifespan through technological augmentation and biological enhancement. This interdisciplinary dialogue explores ethical considerations, societal implications, and the potential to redefine human existence beyond traditional constraints. Transhumanism advocates for extending human capabilities beyond biological limits, prompting a shift in healthcare administration towards proactive health promotion (Fonseca, 2021). The approach emphasizes longevity and social interconnectedness, prioritizing holistic well-being over mere disease management. By redesigning healthcare models to focus on prevention and empowerment, transhumanism challenges traditional notions and fosters a more collaborative relationship between healthcare professionals and patients. This paradigm shift not only redefines moral values within the healthcare ecosystem but also underscores the importance of embracing emerging technologies and information sharing for a more resilient and morally sustainable healthcare system in our interconnected society.

The risk society framework provides a lens through which to understand and navigate these complex issues (Ferrão, 2018). It is acknowledged that progress in biotechnology and transhumanist endeavours inevitably brings about uncertainties and potential hazards. These risks extend beyond mere physical safety concerns to encompass broader societal implications, including questions of equity, identity, and autonomy.

Public policies concerning transhumanism and longevity involve a dynamic interplay among various stakeholders, including governmental bodies, research institutions, and advocacy groups (Ferrão, 2018). These actors collaborate to navigate ethical dilemmas, ensure regulatory oversight, and promote equitable access to life-extending technologies. However, healthcare policies also face challenges such as balancing innovation with safety, addressing socio-economic disparities in healthcare access, and safeguarding individual autonomy amidst technological advancements. Analysing these policies through the risk society framework highlights the importance of assessing potential risks and benefits, anticipating unintended consequences, and engaging in transparent decision-making processes to promote societal resilience and well-being.

Therefore, bioadministration, as the governance and management of these biological technologies and interventions, becomes crucial within the risk society paradigm. Regulating the development and application of biotechnologies is not the only concern. Fostering public dialogue, ensuring transparency, and addressing concerns surrounding their deployment are also important (Rome call for Ethics).

Conclusion

In conclusion, the paper explores the profound implications of technological advancements, particularly in artificial intelligence and biotechnology, on organizations, society, and humanity. We introduce the concept of bio-administration, which emphasizes the integration of human and non-human values in organizational management. The paper highlights the crucial role of public policies and the need for sustainable organizational practices amid advancements like AI and genetic interventions. As humanity converges with AI and biotechnology, the responsibility for a sustainable and ethically conscious future lies jointly with governments and private organizations. This paradigm shift challenges traditional management models and ethical frameworks, calling for interdisciplinary dialogue and collaboration. Bio-administration highlights the need to navigate the ethical, social, and existential dimensions of technological progress responsibly. The risk society model highlights the significance of interdisciplinary collaboration and adaptive governance structures. As advancements in biotechnology outpace our understanding of their implications, a flexible and responsive approach to risk management becomes essential. Ultimately, this paper invites the readers to consider significant implications for organizations, society, and the course of human evolution in an era marked by unprecedented technological advancements in the area of longevity.

References

- Bednarik, R. G. (2016). *Understanding Human Behaviour: Theories, Patterns, and Developments*. Nova Biomedical.
- Bostrom, N. (2014). *Superintelligence: Paths, Dangers, Strategies*. Editora. Oxford University Press.
- Fukuyama, F. (2002). *Our posthuman future: consequences of the biotechnology revolution* (1st Picador ed.). Picador.

- Fukuyama, F. (2012). *The end of history and the last man*. Penguin Books.
- Henricson, C. (n.d.). *Morality and the Human Condition*. Retrieved from <https://clemhenricson.com/assets/morality-and-the-human-condition.pdf>
- Hughes, J. (2013). "Transhumanism and Personal Identity." In M. More & N. Vita-More (Eds.), *The Transhumanist Reader* (pp. 227-234). Wiley.
- Jennifer Takhar, H. Rika Houston & Nikhilesh Dholakia (2022) Live very long and prosper? Transhumanist visions and ambitions in 2021 and beyond..., *Journal of Marketing Management*, 38:5-6, 399-422.
- Kagan, J. (1992). *Unstable Ideas: Temperament, Cognition, and Self*. Harvard University Press.
- Rawls, J. (1971). *A Theory of Justice*. The Belknap Press of Harvard University Press.
- Robbins, S. P., & Judge, T. A. (2019). *Organizational behaviour* (18th ed.). Pearson.
- Russell, S. J., & Norvig, P. (2022). *Artificial intelligence: A modern approach* (5th ed.). Pearson.
- Savulescu, J. (2016). "Tecnologías de mejora humana: Debate ético e impacto sociocultural." *Gazeta de Antropología*, 32(2). <http://www.gazeta-antropologia.es/?p=4891>
- Sen, A. (2011). *The Idea of Justice*. Belknap Press.
- Shafer-Landau, R. (2020). *The fundamentals of ethics* (5th ed.). Oxford University Press.
- Tamara Kayali Browne & Steve Clarke (2020) Bioconservatism, bioenhancement and backfiring, *Journal of Moral Education*, 49:2, 241-256.
- Treviño, L. K., & Nelson, K. A. (2020). *Managing business ethics: Straight talk about how to do it right* (8th ed.). Wiley.
- Cairney, P. (2020). *Understanding Public Policy Theories and Issues*. Red Globe Press.
- Michael Moran, Martin Rein and Robert E. Godin (2008). *The Oxford Handbook of Public Policy*. Oxford University Press.
- David Runciman (2016). *Política*. Penguin Random House.
- Joaquim Jorge Veiguinha (2022). *História Crítica do Pensamento Político*. Edições 70.
- Rome Call for AI Ethics (2020). RenAIssance Foundation.
- Susan Neiman(2024). *A Esquerda não é woke*. Editorial Presença.
- Ricardo Ramos Pinto(2021). *Avaliação de Políticas Públicas*. Instituto superior de Ciências Sociais e Políticas.
- Henry A. Kissinger, Eric Schmidt, Daniel Huttenlocher (2021). *A Era da Inteligência Artificial*. Dom Quixote
- João Ferrão, J.M. Pinto Paixão(2018). *Metodologia de Avaliação de Políticas Públicas*. Universidade de Lisboa
- Fonseca V, Caeiro J. Bioethics and healthcare policies. The benefit of using genetic tests of BRCA 1 and BRCA 2 in elderly patients. *Int J Health Plann Manage*. 2021 Jan;36(1):18-29. doi: 10.1002/hpm.3072. Epub 2020 Sep 25. PMID: 32978840.