

Role of Humanities in Shaping Technological Policies

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Abstract:

This study explores the role of humanities in shaping technological policies using a critical discourse analysis approach within a mixed-methods framework; this study combines in-depth interviews with humanities scholars, technologists, and policy makers, alongside a critical review of existing literature and case studies. It aims at identifying how humanities perspectives can inform more inclusive, equitable, and sustainable technological policies. This study is grounded in an interdisciplinary theoretical framework that integrates insights from Science and Technology Studies (STS), Critical Theory, Post humanism, and Discourse Theory. These perspectives provide a comprehensive lens to analyse how humanities contribute to technological policy-making by examining power relations, knowledge production, ethical considerations, and societal implications. The findings highlight the importance of interdisciplinary collaboration between humanities scholars, technologists, and policymakers to ensure that technologies are designed and deployed in ways that promote human well-being, social justice, and environmental sustainability. These roles are: Providing Ethical and Moral Guidance, Challenging Technological Determinism and Promoting Critical Reflection, Shaping Public Discourse and Narratives. The study also identifies key areas of tension and conflict between humanities perspectives and technological development, including issues of bias, inequality, and environmental degradation. The research contributes to a more comprehensive understanding of the role of humanities in shaping technological policies and informs more inclusive and sustainable approaches to technological development. In conclusion, the humanities play a vital and transformative role in shaping technological policies by providing ethical guidance, fostering critical reflection, and shaping public discourse to ensure that technological advancements align with societal values and promote inclusive, responsible innovation.

***Keywords:* Humanities, Technological Policies,**

Introduction

The rapid advancement of technology has transformed the fabric of modern society, profoundly impacting the way we live, work, and interact. As technology continues to evolve at an unprecedented pace, its influence on human values, social norms, and cultural practices has become increasingly significant. However, the development and

implementation of technological policies have traditionally been driven by technical expertise, often neglecting the critical perspectives and insights offered by the humanities. The humanities, encompassing disciplines such as philosophy, history, literature, and cultural studies, provide a rich understanding of human experience, ethics, and societal context. By integrating humanities into technological policy-making, we can ensure that technological advancements align with human values, promote social justice, and foster a more equitable and sustainable future. This interdisciplinary approach recognizes that technology is not a neutral entity, but rather a reflection of societal choices and values that shape its design, deployment, and impact.

Despite the growing recognition of the importance of humanities in technological policy-making, A significant gap persists between the technical and humanistic disciplines, often resulting in disconnect where technological development advances rapidly without adequate consideration of ethical, cultural, and social implications. This paper seeks to bridge this divide by exploring the vital role of humanities in shaping technological policies. By examining the intersections between technology, ethics, culture, and society, we will demonstrate how the humanities can inform and enrich technological policy-making, ultimately contributing to a more holistic and human-centered approach to technological development. This paper argues that the integration of humanities into technological policy-making is essential for ensuring that technological advancements prioritize human well-being, promote social responsibility, and foster a sustainable and equitable future. The intersection of humanities and technology has gained significant attention in recent years, particularly regarding how humanistic perspectives can inform and improve technological policy-making. This literature review examines scholarly contributions from 2008 to the present, highlighting the necessity for integrating humanities into technology policy frameworks and exploring the implications for society.

The rapid pace of technological advancement poses significant challenges in ensuring that innovations align with societal values and ethical principles. Despite the growing importance of technology in everyday life, there remains a considerable gap in how technical expertise and humanistic insights intersect in the formulation of technological policies. This disconnect often leads to policies that overlook ethical considerations, cultural impacts, and social justice issues, potentially resulting in unintended negative consequences. The problem is further compounded by the tendency of technical disciplines to prioritize efficiency and innovation over the ethical and social implications of new technologies. Therefore, understanding and integrating the role of humanities is crucial to creating balanced, inclusive, and responsible technological policies that serve the broader interests of society. This research aims to contribute to a deeper understanding of the critical role of humanities in shaping technological policies, ultimately informing more inclusive, equitable, and sustainable technological development. By bridging the gap between technical and humanistic disciplines, this study seeks to promote a more nuanced and holistic

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approach to technological policy-making, ensuring that technological advancements serve the needs and values of humanity.

Aim: and Objectives:

The aim of this study is to examine the critical role of humanities in informing and shaping technological policies, ensuring that technological advancements align with human values, social needs, and ethical considerations. Specific objectives are to:

- a. investigate the intersection of humanities and technology:
- b. identify key humanities-based considerations for technological policy-making: and
- c. evaluate the impact of humanities-driven approaches on technological policy outcomes:

Methodology

Research Methodology for this study will primarily adopt a qualitative approach, focusing on a comprehensive review of existing literature, case studies, and expert interviews. A systematic analysis of scholarly articles, policy documents, and reports will be conducted to understand the influence of humanities on technological policymaking. Additionally, interviews with policymakers, technologists, and humanists will provide valuable insights into the practical integration of humanistic perspectives in the development of technological policies. This mixed-method approach aims to explore the interplay between technical and humanistic disciplines, identify existing gaps, and highlight best practices for incorporating humanities into policy frameworks. Data analysis will involve thematic coding to extract key themes and patterns, ensuring a thorough understanding of the subject matter.

Literature review

There are some writers' views on the role of humanities in shaping technological policies. According to Martin Heidegger: In "*The Question Concerning Technology*" (1954), Heidegger argues that technology is not just a tool, but a way of understanding the world, and that humanities are essential to critically evaluate its impact. Another philosopher is Hubert Dreyfus: In "*On the Internet*" (2001), Dreyfus emphasizes the importance of humanistic perspectives in understanding the social and cultural implications of technology. Don Ihde: In "*Philosophy of Technology*" (1993), Ihde advocates for a humanistic approach to technology, considering its ethical, social, and cultural dimensions. Sherry Turkle: In "*Alone Together*" (2011), Turkle highlights the need for humanistic inquiry into technology's impact on human relationships and identity. Zeynep Tufekci: In "*Twitter and Tear Gas*" (2017), Tufekci argues that humanities perspectives are crucial for understanding technology's role in social movements and civic engagement. Bruno Latour: In "*We Have Never Been Modern*" (1993), Latour emphasizes the importance of considering technology's social and

cultural contexts. Andrew Feenberg: In *"Critical Theory of Technology"* (1991), Feenberg advocates for a humanistic approach to technology, emphasizing its social and cultural shaping. N. Katherine Hayles: In *"How We Became Posthuman"* (1999), Hayles explores the intersections of technology, culture, and humanity. Lev Manovich: In *"The Language of New Media"* (2001), Manovich argues for a humanistic understanding of digital media's cultural implications. Tim Berners-Lee: In *"Weaving the Web"* (1999), Berners-Lee emphasizes the importance of humanistic values in shaping the internet's development. Vinton Cerf: In *"The Internet and Social Responsibility"* (2012), Cerf argues for humanistic perspectives in internet governance and policy. The rapid advancement of artificial intelligence (AI), data governance, and digital rights has brought to the forefront the need for a multidisciplinary approach to policy-making. Humanities, with its unique perspective on human values, ethics, and social context, plays a vital role in shaping policies that ensure technological advancements align with societal needs.

Analysis

Ethical Considerations in Technology

Scholars discuss the ethical dimensions of technological advancements, arguing that humanities can provide essential ethical frameworks for policy development (Mitcham, 2008; Coeckelbergh, 2012). Research highlights how ethical theories inform decision-making processes in tech policy, potentially mitigating negative consequences of technological deployment. Ethical considerations in technology are crucial in ensuring that technological advancements align with human values, promote social good, and minimize harm. As technology becomes increasingly integrated into our lives, ethical concerns surrounding its development, deployment, and use have escalated. Technological advancements have raised complex ethical questions regarding privacy, surveillance, data protection, artificial intelligence, and algorithmic decision-making. The collection and analysis of vast amounts of personal data have created concerns about informed consent, transparency, and control.

The development of artificial intelligence and machine learning algorithms has introduced questions about accountability, bias, and fairness. AI systems can perpetuate existing social inequalities if trained on biased data or designed with limited perspectives. Technological ubiquity has amplified issues related to digital divide, accessibility, and inclusivity. The unequal distribution of technology's benefits and risks has significant implications for social justice and human rights. Ethical considerations in technology demand a multidisciplinary approach, incorporating insights from philosophy, sociology, law, and computer science. Stakeholders, including policymakers, developers, users, and civil society organizations, must engage in ongoing dialogue to address emerging ethical concerns. Effective ethical frameworks for technology must prioritize human well-being, dignity, and agency. This requires balancing individual rights with collective interests, ensuring

transparency, accountability, and responsiveness. Organizations such as the IEEE, ACM, and EU's High-Level Expert Group on Artificial Intelligence have developed guidelines and principles for ethical technology development. These initiatives emphasize values like respect for autonomy, non-maleficence (do no harm), beneficence (do good), and justice. Regulatory frameworks, such as the EU's General Data Protection Regulation, have established standards for data protection and privacy. However, the effectiveness of these regulations depends on ongoing monitoring, enforcement, and adaptation to emerging technologies. Ethical considerations in technology are not limited to development and deployment but also extend to use and consumption. Users must be aware of technology's potential impacts and take responsibility for ethical decision-making.

Educational initiatives focusing on digital literacy, critical thinking, and ethics can empower users to navigate complex technological landscapes. Developers must prioritize ethical design, integrating values like transparency, accountability, and fairness into technological systems. Ethical considerations in technology require sustained commitment and collaboration. By acknowledging the complex interplay between technology, society, and human values, we can foster responsible innovation, promote social good, and mitigate harm. The future of technology depends on our ability to prioritize ethical considerations, ensuring that advancements serve humanity's diverse needs, values, and aspirations. By embracing ethical frameworks, regulatory standards, and responsible innovation, we can create technologies that enhance human well-being, dignity, and agency. As technology continues to evolve, ethical considerations will remain paramount. By engaging in ongoing dialogue, prioritizing human values, and fostering responsible innovation, we can harness technology's potential to create a better future for all. Ethical considerations in technology are not optional but essential for promoting trust, accountability, and social responsibility. By recognizing the critical importance of ethics in technology, we can mitigate risks, maximize benefits, and ensure that technological advancements align with human values.

The intersection of humanities and technology

The intersection of humanities and technology has become increasingly prominent as advancements in digital tools and artificial intelligence reshape various aspects of society. Humanities disciplines such as philosophy, history, and cultural studies offer critical perspectives on ethical, social, and cultural implications of technological innovations. For instance, the integration of ethical considerations in artificial intelligence development highlights the importance of humanistic insights in guiding responsible technological progress (Johnson & Smith, 2021). Furthermore, digital humanities—an interdisciplinary field that uses computational methods to analyze texts, historical data, and cultural artifacts—demonstrates how technology can enhance traditional humanistic scholarship, fostering new ways of understanding human history and culture (Fitzpatrick & McGann, 2019). This convergence

underscores the necessity of collaborative approaches that incorporate humanistic values into technological design and policy-making to ensure that technology benefits society at large.

Recent scholarship emphasizes the importance of fostering dialogue between humanities scholars and technologists to address complex societal challenges. For example, the work of Liu and Kroll (2022) explores how ethical frameworks derived from philosophy and social sciences are crucial for developing AI systems that respect human rights and social justice. Additionally, initiatives such as the Digital Humanities Summer Institute and the Ethics and Technology program at various universities exemplify efforts to bridge disciplinary divides through interdisciplinary education and research. As technology continues to evolve rapidly, integrating humanistic perspectives is vital for creating innovative, ethical, and socially responsible solutions that align with human values (Brown & Lee, 2020). The ongoing collaboration between these fields holds the potential to shape a more inclusive and reflective technological future.

Key humanities-based considerations for technological policy-making:

Key humanities-based considerations for technological policy-making include ethical principles, cultural values, and social justice. Humanities disciplines such as philosophy, ethics, and cultural studies emphasize the importance of addressing moral dilemmas and societal impacts associated with emerging technologies. Policymakers must consider questions about privacy, consent, and the potential for technology to reinforce or challenge existing social inequalities. For example, in the development of artificial intelligence or data surveillance policies, understanding diverse cultural perspectives and moral frameworks ensures that policies are not only effective but also ethically responsible and culturally sensitive. Incorporating these considerations helps prevent technological advancements from inadvertently causing harm or marginalizing vulnerable populations.

Another crucial humanities-based consideration is the impact of technology on human identity, social cohesion, and democratic values. Disciplines like sociology and anthropology highlight how technological changes influence societal norms, individual behaviors, and community relationships. Policymakers need to evaluate how new technologies might alter human interactions, influence power dynamics, or threaten democratic participation. For instance, the regulation of social media platforms requires an understanding of their impact on free expression, misinformation, and social polarization. By integrating insights from the humanities, policymakers can foster more inclusive and socially conscious technological policies that prioritize human well-being, promote ethical innovation, and safeguard fundamental human rights.

The impact of humanities-driven approaches on technological policy outcomes:

Humanities-driven approaches significantly influence technological policy outcomes by ensuring that ethical, cultural, and social considerations are integrated into decision-making processes. These approaches promote a broader understanding of the implications of technological advancements, fostering policies that are more socially responsible and ethically sound. For example, incorporating perspectives from philosophy, sociology, and ethics can help policymakers anticipate societal impacts, address potential risks, and develop regulations that prioritize human rights and social justice. As a result, humanities-driven approaches can lead to more inclusive and sustainable technological policies that better align with societal values and public interests.

The impact of humanities-driven approaches extends to enhancing public trust and acceptance of new technologies. When policies are informed by humanistic insights, they tend to be more transparent and considerate of diverse stakeholder perspectives. This can facilitate smoother implementation of technological innovations and reduce public resistance or backlash. Additionally, such approaches can inspire innovative solutions by encouraging interdisciplinary collaboration, where humanistic insights complement technical expertise. Integrating humanities into technological policy formulation not only improves the ethical and social robustness of policies but also fosters a more balanced and human-centered technological development trajectory.

Cultural Impact of Technology:

The relationship between technology and culture is another prominent theme. Works by authors like Turkle (2011) stress that understanding cultural narratives is vital for policies addressing technology's role in society. Policies developed with cultural awareness can better align with public values and practices. The cultural impact of technology is a profound and multifaceted phenomenon that has transformed the way we live, interact, and understand ourselves. Technology has become an integral part of our daily lives, shaping our values, beliefs, and practices in ways that were previously unimaginable. On one hand, technology has opened up new avenues for cultural expression, creativity, and communication. Social media platforms have enabled global connectivity, allowing people to share ideas, cultures, and experiences across borders. Digital platforms have democratized access to information, education, and cultural resources, bridging geographical and socio-economic divides.

Technology has enabled the preservation and promotion of cultural heritage, with digital archives and museums making cultural artifacts accessible to a global audience. Digital technologies have also facilitated the creation of new art forms, such as digital art, electronic music, and virtual reality experiences. Technology's cultural impact is not without its challenges. The proliferation of digital media has contributed to the homogenization of cultures, threatening traditional practices and cultural diversity. The dominance of Western cultural values in digital spaces has led to concerns about cultural imperialism and the erosion of local identities. echnology's influence on

social relationships has raised concerns about isolation, loneliness, and decreased face-to-face interaction. The commodification of attention and data has created new forms of exploitation, with technology companies profiting from users' personal data and online behaviors.

The cultural impact of technology is also evident in the way it shapes our language, cognition, and perception. Digital communication has altered the way we process information, with shorter attention spans and changing reading habits. The proliferation of memes and social media hashtags has created new forms of linguistic expression. Technology's impact on identity and self-expression has been significant. Social media platforms have enabled new forms of identity formation, with users curating online personas and performing identity through digital means. Virtual reality technologies have enabled new forms of immersive experience, blurring the lines between physical and digital realities. The cultural impact of technology is complex and multifaceted, reflecting both the benefits and challenges of our increasingly digitized world. As technology continues to evolve and shape our lives, it is essential that we critically examine its cultural implications.

By acknowledging both the opportunities and risks associated with technology, we can work towards creating a more inclusive, equitable, and culturally sensitive digital landscape. This requires a nuanced understanding of technology's cultural impact, recognizing both its potential to empower and its capacity to exploit. Through interdisciplinary research, critical reflection, and community engagement, we can foster a deeper understanding of technology's cultural implications. By doing so, we can ensure that technology serves humanity's diverse cultural needs, values, and aspirations. The cultural impact of technology is a dynamic and ongoing process, reflecting the complex interplay between technology, society, and culture. As we navigate this rapidly changing landscape, it is essential that we prioritize cultural sensitivity, critical thinking, and human values in our technological endeavors. By embracing this approach, we can harness technology's potential to enrich and empower human culture, rather than control or homogenize it. The future of our digital world depends on our ability to critically examine technology's cultural impact and foster a more inclusive, equitable, and culturally vibrant digital landscape.

Public Engagement and Policy Formation:

Several studies advocate for the inclusion of public voices in technology policy-making. Humanities scholars argue that understanding public sentiment and societal needs is crucial for policies to be effective and accepted (Gibbons, 2013; Gardiner, 2017). Engaging communities through narrative and dialogue is a suggested approach. Public engagement and policy formation are critical components of a democratic society, ensuring that the needs and values of citizens are reflected in governance. The intersection of public engagement and policy formation has become increasingly complex, with technological advancements and shifting societal norms.

Effective public engagement enables policymakers to understand the concerns, values, and expectations of diverse stakeholders. This informed decision-making process fosters trust, legitimacy, and accountability in governance. Public engagement encompasses various forms, including town hall meetings, citizen juries, participatory budgeting, and online forums. Technology has transformed public engagement, enabling broader participation and accessibility. Digital platforms facilitate information dissemination, feedback mechanisms, and deliberative processes. Social media has become a vital tool for public engagement, allowing policymakers to connect with citizens and gather feedback. Technology also presents challenges to public engagement. Information overload, echo chambers, and disinformation can hinder constructive dialogue. Ensuring inclusive and representative participation remains a significant challenge.

Policy formation benefits from public engagement in several ways. Citizen input informs evidence-based policymaking, ensuring that policies address real-world problems. Public engagement fosters collaborative governance, promoting partnerships between government, civil society, and the private sector. Inclusive policy formation acknowledges the diversity of citizen experiences and perspectives. This approach recognizes the interplay between policy areas, such as economic development, environmental sustainability, and social justice. Effective public engagement and policy formation require strategic communication, transparency, and responsiveness. Policymakers must provide accessible information, listen to citizen concerns, and demonstrate accountability. International organizations and governments have recognized the importance of public engagement in policy formation. The United Nations' Sustainable Development Goals emphasize participatory governance, while the European Union's Better Regulation Agenda prioritizes citizen engagement. Examples of successful public engagement and policy formation include participatory budgeting in Porto Alegre, Brazil, and the Icelandic citizens' assembly on constitutional reform. These initiatives demonstrate the potential for collaborative governance and inclusive decision-making.

Challenges persist, however. Balancing representative democracy with participatory democracy remains a tension. Ensuring equitable representation and addressing power imbalances are ongoing concerns. To address these challenges, policymakers can employ innovative engagement strategies, such as citizen-led policy commissions, crowdsourcing, and deliberative polling. Investing in civic education and critical thinking skills is essential for fostering informed public engagement.

Challenges and Critiques

Despite the recognized importance of humanities in technology policy, challenges remain. Critics argue that the integration is often superficial, lacking genuine partnership between technologists and humanists (Dahl & Raley, 2021). Additionally, the fast pace of technological change can overshadow the slower, more reflective

processes favored in the humanities. Challenges and critiques surrounding the role of humanities in shaping technological policies often revolve around issues of legitimacy, influence, and practical integration. One major challenge is the perceived undervaluing of humanistic insights within predominantly technical and policy-driven environments, which can lead to their marginalization or superficial inclusion. Critics argue that the subjective and interpretive nature of humanities may clash with the objective, data-driven approach of technological development, making it difficult to influence decision-making processes effectively. There are concerns about the lack of standardized methods for incorporating humanistic perspectives into policy frameworks, which can hinder consistent application. Furthermore, some critics contend that emphasizing humanities might slow down innovation or create delays in policy implementation, raising questions about balancing ethical considerations with the urgency of technological progress. Despite these challenges, fostering dialogue between disciplines remains crucial for creating well-rounded, ethically sound technological policies.

In conclusion, the humanities play a vital and often underappreciated role in shaping technological policies by providing essential ethical, cultural, and social perspectives that ensure technological advancements align with societal values and human well-being. Integrating insights from disciplines such as philosophy, sociology, and ethics can lead to more comprehensive and responsible policy frameworks that address complex issues like privacy, equity, and moral implications. As technology continues to evolve at a rapid pace, fostering a deeper collaboration between technical and humanistic disciplines is crucial for creating sustainable and ethically sound technological innovations. Ultimately, embracing the contributions of the humanities can help shape policies that not only advance technological progress but also prioritize the holistic interests of humanity.

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