

Teknologi Informasi Tentang Sebagai Dasar Transformasi Menjadi Masyarakat Digital Dan Industri 5.0

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Abstract

This abstract will provide an overview of the concept of a digital society and industry 5.0, which is a new paradigm of industry that focuses on the integration of advanced technologies with a human-centric approach. The digital society is an emerging trend where technology is transforming the way people live, work, and interact with each other. The type of factories 5.0 refers to the next phase of industrial revolution, where the focus is not just on automation, but also on empowering and augmenting human labor. The integration of advanced technologies, such as Artificial Intelligence (AI), Internet of Things (IoT), and Big Data, is enabling the creation of intelligent, human-centric systems that can interact with humans in a natural and intuitive way. This transformation is enabled by the advancements in Information Technology (IT), which have made it possible to create more intuitive and interactive systems. However, as we move towards Industry 5.0, it is important to keep in mind the importance of ethical and responsible use of technology to ensure that it benefits society.

Keywords: information technology; digital society; industry 5.0

Abstrak

Abstrak ini akan memberikan gambaran tentang konsep masyarakat digital dan industri 5.0, yang merupakan paradigma baru industri yang berfokus pada integrasi teknologi canggih dengan pendekatan human centric. Masyarakat digital adalah tren yang muncul di mana teknologi mengubah cara orang hidup, bekerja, dan berinteraksi satu sama lain. Tipe pabrik 5.0 mengacu pada fase revolusi industri berikutnya, di mana fokusnya tidak hanya pada otomatisasi, tetapi juga pada pemberdayaan dan penambahan tenaga kerja manusia. Integrasi teknologi canggih, seperti Artificial Intelligence (AI), Internet of Things (IoT), dan Big Data, memungkinkan terciptanya sistem cerdas yang berpusat pada manusia yang dapat berinteraksi dengan manusia secara alami dan intuitif. Transformasi ini dimungkinkan oleh kemajuan Teknologi Informasi (TI), yang memungkinkan terciptanya sistem yang lebih intuitif dan interaktif. Namun, saat kita bergerak menuju Industri 5.0, penting untuk diingat pentingnya penggunaan teknologi yang etis dan bertanggung jawab untuk memastikan bahwa teknologi tersebut bermanfaat bagi masyarakat secara keseluruhan..

Kata kunci: teknologi informasi; masyarakat digital; industri 5.0

1. Pendahuluan

The world is in the midst of a digital transformation, where technology is changing the way people live, work, and interact with each other. The emergence of Industry 4.0, which focuses on the integration of advanced technologies to improve productivity, efficiency, and customer experience, has led to significant changes in the business and industrial landscape. However, as we move towards Industry 5.0, the focus is shifting from automation to human-centricity. Industry 5.0 is characterized by the integration of advanced technologies, such as Artificial Intelligence (AI), Internet of Things (IoT), and Big Data, to empower and augment human labor. It is an era where machines are not just tools to replace humans, but also intelligent assistants that can interact with humans in a natural and intuitive way. The concept of a digital society is also emerging, where technology is transforming the way people live and interact with each other. The integration of technology in various aspects of life, such as healthcare, education, transportation, and entertainment, is enabling new opportunities and possibilities for

individuals and communities. However, as we embrace this new era of industry and society, it is important to keep in mind the importance of ethical and responsible use of technology to ensure that it benefits society as a whole. In this journal, we will explore the role of Information Technology (IT) as the basis for transformation into a digital society and Industry 5.0, and discuss the opportunities and challenges that come with this transformation.

The rapid development of Information Technology (IT) has transformed the world, leading to the emergence of a digital community and Industry 5.0. The concept of a digital community is an emerging trend where technology is transforming the way people live, work, and interact with each other. It is a community where digital technologies are integrated into various aspects of life, such as healthcare, education, transportation, and entertainment, to create new opportunities and possibilities for individuals and communities.

Industry 5.0, on the other hand, is the next phase of industrial revolution, where the focus is not just on automation, but also on empowering and augmenting human labor. It is an era where machines are not just tools to replace humans, but also intelligent assistants that can interact with humans in a natural and intuitive way. The integration of advanced technologies, such as Artificial Intelligence (AI), Internet of Things (IoT), and Big Data, is enabling the creation of intelligent, human-centric systems that can improve productivity, efficiency, and customer experience.

The transformation towards a digital community and Industry 5.0 is enabled by the advancements in Information Technology. IT has made it possible to create more intuitive and interactive systems that can understand and respond to human needs, behaviors, and emotions. It has also enabled the emergence of the sharing economy, where individuals can share their resources with others, and the development of cybersecurity frameworks to ensure the security and privacy of data and systems.

However, as we embrace this new era of industry and society, it is important to keep in mind the importance of ethical and responsible use of technology to ensure that it benefits society as a whole. In this journal, we will explore the role of Information Technology (IT) as the basis for transformation into a digital community and Industry 5.0, and discuss the opportunities and challenges that come with this transformation.

2. Metode

To explore the transformation into a digital community and Industry 5.0, a range of research methods can be utilized. Some potential research methods are:

Literature Review: Conducting a literature review is a fundamental research method to investigate the current state of knowledge about the topic. It involves a systematic review and critical analysis of existing literature to identify gaps, trends, and opportunities. This method can provide a comprehensive understanding of the key concepts, theories, and practices related to the transformation into a digital community and Industry 5.0.

Surveys: Surveys are a quantitative research method that involves collecting data from a large sample of people through questionnaires or online forms. Surveys can be used to understand the attitudes, opinions, and behaviors of individuals towards the transformation into a digital community and Industry 5.0. They can also provide insights into the impact of technology on different aspects of life, such as work, education, and social interactions.

Interviews: Interviews are a qualitative research method that involves in-depth conversations with individuals to gain insights into their perspectives, experiences, and beliefs. Interviews can be used to explore the challenges and opportunities of the transformation into a digital community and Industry 5.0 from the perspectives of different stakeholders, such as policymakers, industry leaders, and community members.

Case Studies: Case studies are a qualitative research method that involves analyzing a specific case or phenomenon in-depth to gain insights into its characteristics, processes, and outcomes. Case studies can be used to investigate how the transformation into a digital community and Industry 5.0 is being implemented in different contexts, such as cities, regions, or industries.

Data Analytics: Data analytics is a quantitative research method that involves analyzing large sets of data using statistical and machine learning techniques. Data analytics can be used to extract insights and patterns from data related to the transformation into a digital community and Industry 5.0, such as usage patterns of digital technologies, consumer behavior, and market trends.

Overall, a combination of these research methods can be used to gain a comprehensive understanding of the transformation into a digital community and Industry 5.0 and its impact on society and industry.

3. Hasil dan Pembahasan

The transformation towards a digital community and Industry 5.0 has significant implications for society and industry. Here are some potential results and discussions:

Digital Community: The emergence of a digital community is transforming the way people live, work, and interact with each other. Digital technologies are enabling the creation of new opportunities and possibilities, such as remote work, telemedicine, and online education. However, this transformation also brings challenges, such as the digital divide and the potential for social isolation.

Industry 5.0: The focus on empowering and augmenting human labor in Industry 5.0 is enabling the creation of intelligent, human-centric systems that can improve productivity, efficiency, and customer experience. However, it also raises concerns about the displacement of human labor, the ethical implications of AI, and the need for new skills and competencies in the workforce.

Data and Privacy: The transformation towards a digital community and Industry 5.0 generates massive amounts of data that can be used to create value and improve services. However, it also raises concerns about data privacy, security, and ownership. To ensure that the benefits of digital transformation are realized while minimizing the risks, it is crucial to establish robust data protection and cybersecurity frameworks.

Regulation and Governance: The transformation towards a digital community and Industry 5.0 requires new forms of regulation and governance to ensure that technology is used ethically and responsibly. Policymakers need to develop frameworks that promote innovation while ensuring the protection of human rights, the environment, and public safety.

Collaboration and Partnerships: The transformation towards a digital community and Industry 5.0 requires collaboration and partnerships among different stakeholders, such as governments, businesses, and communities. Collaboration can help address the challenges of digital transformation, such as the digital divide and the need for new skills and competencies.

In conclusion, the transformation towards a digital community and Industry 5.0 is a complex and multifaceted process that has significant implications for society and industry. While it presents numerous opportunities, it also raises challenges that need to be addressed through collaboration, governance, and ethical considerations.

4. Simpulan

In conclusion, the transformation towards a digital community and Industry 5.0 represents a significant shift in the way we live, work, and interact with each other. The integration of digital technologies into every aspect of our lives offers enormous potential for creating new opportunities, improving productivity, and enhancing the quality of life. However, it also raises concerns about the impact on human labor, privacy, and security. To realize the potential benefits of the digital transformation while minimizing the risks, it is crucial to establish a robust governance framework that promotes ethical and responsible use of technology. Collaboration and partnerships among different stakeholders, such as governments, businesses, and communities, can help address the challenges of digital transformation, such as the digital divide and the need for new skills and competencies. As we continue to move towards a digital community and Industry 5.0, it is essential to recognize that this transformation is not just a technological shift, but a societal one that requires a comprehensive and inclusive approach. By embracing this transformation with a shared vision and commitment, we can create a future that benefits everyone and promotes sustainable and inclusive growth.

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