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Digitalization and the Future of Work: Transforming Industries, Job Markets, and Skills

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Abstract:

Significant changes have been brought about in many facets of society due to the rapid progress of digitization, particularly in the workplace. This study intends to investigate how sectors, job marketplaces, and the necessary skills for employment in the future have been impacted by digitalization. This paper offers insight into the transformative effects and their implications for employees, firms, and governments by reviewing current trends and analyzing empirical data. The results highlight the need for proactive efforts to adapt to the changing nature of work and give people the skills they need to succeed in a digitally-driven environment.

Introduction:

The digital revolution has dramatically transformed how we live, interact, and conduct business. The workplace has been significantly impacted by this transformation, among other areas. [1] Technology-driven digitalization has transformed sectors, upended established job markets, and changed the skills needed for future employment. This study examines the dramatic effects of digitalization on various sectors of the economy, employment markets, and skill sets, as well as the ramifications for consumers, companies, and policymakers. [2] The digitalization of industries is predicted to result in the displacement of around 85 million jobs globally by 2025, according to a study conducted by the World Economic Forum (WEF) in 2020 (WEF, 2020). [3]

The term "digitalization" describes incorporating digital technologies into numerous facets of society, such as commercial activities, goods, and services. It includes innovations like the Internet of Things (IoT), automation, big data analytics, and artificial intelligence (AI). These technologies have changed industries by boosting efficiency, streamlining processes, and enabling new business models. [4] According to Accenture, in 2021, digitization can boost industry productivity by up to 40%. [5]

Digitalization's impact on many industries has given rise to both opportunities and difficulties. As a result of the disruption caused by digital technologies, traditional industries, including manufacturing, finance, healthcare, and transportation, have seen substantial changes. While fintech has altered the financial world, automation, and robotics have revolutionized manufacturing processes. Transportation has grown more efficient and linked thanks to innovations like driverless vehicles, while digital health solutions have improved patient care and treatment outcomes. 430 million people globally, or 14% of all workers, are in high danger of being replaced owing to automation and digitalization, according to a report by the International Labour Organisation (ILO) from 2021 (ILO, 2021). [6,7]



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New types of work have been established, and the mechanics of job relationships have changed due to the growth of the gig economy and online platforms. According to a McKinsey report from 2020, online platforms and gig employment might increase the global GDP by \$2.7 trillion by 2025. [8]

Although digitalization has opened up new possibilities, it has also caused difficulties in the job market. Automation of traditional job functions is raising concerns about job displacement and unemployment. New types of work have been established, and the mechanics of job relationships have changed due to the growth of the gig economy and online platforms. In addition to learning digital skills and navigating a changing employment market marked by unpredictability and flexibility, workers must adjust to new working arrangements. [8,9]

The digitalization of society has resulted in a considerable change in the skills needed for employment in the future. The importance of digital literacy, data analysis, coding, critical thinking, adaptability, and creativity is rising. They must develop these abilities to take advantage of new opportunities and maintain their competitiveness in the labor market. Education and training systems must adapt to equip individuals with the necessary skills and promote lifelong learning. [10]

An in-depth study will be done on these subjects, examining how digitalization has changed industries, employment markets, and skill sets. It attempts to offer insights into digitalization's potential and difficulties by examining current trends, empirical data, and case studies. The results will highlight the need for proactive efforts to adapt to the changing nature of work and give people the skills they need to succeed in a digitalized environment. Ultimately, this research paper aims better to understand the future of work in the digital era and provide guidance for individuals, organizations, and policymakers as they navigate this transformative landscape.

Digitalization: A Catalyst for Transformation

Digitalization has emerged as a powerful catalyst for transforming industries, revolutionizing traditional business models, and reshaping the global economy. It encompasses integrating digital technologies into various aspects of society, leading to profound changes in how industries operate and interact with customers. This section explores the concept of digitalization as a transformative force and examines the key technologies driving this revolution. [11]

The widespread acceptance of digitalization across businesses has been made possible by quickly developing digital technologies, including artificial intelligence (AI), automation, big data analytics, cloud computing, and the Internet of Things (IoT). Businesses now have the tools to streamline operations, increase productivity, and develop new goods and services. According to a McKinsey Global Institute analysis, digitalization might boost the global GDP by \$13 trillion by 2030 (Manyika et al., 2019). [12] This figure demonstrates the enormous potential of digitization to promote wealth and economic growth. Digital technology usage has spread widely across industries. According to a PwC study, 86% of industrial organizations believe that digitization will be a major factor in determining competitiveness in the manufacturing sector during the next few years (PwC, 2020). [13]



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For example, AI has transformed decision-making by enabling machines to mimic human intelligence and carry out previously reserved for people. Machine learning algorithms examine enormous volumes of data to find patterns, forecast the future, and automate difficult activities. Customer service, healthcare diagnostics, and financial fraud detection are just a few industries where this technology has found use, dramatically improving their accuracy and efficiency. [14] The growth of online platforms and the gig economy is another important facet of digitalizing labour. In the United States, there were 59 million freelancers in 2020, making up 36% of the workforce, according to a survey by Upwork and the Freelancers Union (Upwork, 2020). This figure highlights the rising popularity of nontraditional work arrangements made possible by Internet platforms. [15]

Automation—another digitalization pillar—has profoundly impacted various industries by substituting machinery and software for physical labor. Robotic process automation (RPA) automates routine operations so that human workers can concentrate on more difficult and valuable jobs. Manufacturing procedures, supply chain management, and logistics have changed due to automation, which has increased productivity, decreased costs, and enhanced quality control. [16]

Large amounts of structured and unstructured data may now be mined for insights by organizations using big data analytics. Businesses can better understand consumer behavior, market trends, and operational patterns through sophisticated analytics approaches. By using this data to inform data-driven decision-making, businesses may create focused marketing campaigns, streamline processes, and cater to the needs of individual customers. [16-17]

Cloud computing has revolutionized how businesses handle, process, and access data and applications. Thanks to cloud platforms 'scalable and affordable architecture, organizations can use processing power and storage resources on demand. This adaptability has aided in creating new business models like platform-as-a-service (PaaS) and software-as-a-service (SaaS), enabling organizations to install and scale digital solutions fast and with no initial outlay. [18]

The Internet of Things (IoT) has joined actual gadgets and items to the web, enabling smooth data transfer and communication. Because of the real-time data collection from sensors made possible by this network of connected devices, organizations may now monitor and manage many operations from a distance. Smart homes, smart cities, agriculture, and healthcare are just a few sectors that can benefit from IoT applications, promoting efficiency, sustainability, and better decision-making. [19]

Digitalization has altered whole sectors by rethinking business models, improving operational efficiency, and generating new development prospects. Digital technology has significantly altered long-standing practices and conventions in traditional industries like manufacturing, finance, healthcare, and transportation. Businesses that embrace digitalization can acquire a competitive advantage by utilizing data insights, automating procedures, and providing customers with individualized experiences. [20]

Industry transformation, business model change, and economic growth are all being accelerated by digitalization. How businesses function and engage with consumers has been completely transformed by integrating technologies like AI, automation, big data analytics, cloud computing, and IoT. Organizations must embrace digitalization to succeed in the quickly expanding digital era. This will allow them to take advantage of new opportunities,



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spur innovation, and maintain competitiveness in an environment where data is increasingly important. [20-21]

Transforming Industries: Disruption and Opportunities

Digitalization has significantly changed how organizations operate, provide goods and services, and engage with customers. This has created tremendous opportunity and disruption across several industries. This section focuses on the disruptions and opportunities presented by digitalization's revolutionary influence on many industries.

Manufacturing: The "fourth industrial revolution" or "Industry 4.0" is frequently referred to as the result of the digitalization of manufacturing processes. Production lines are now more productive and adaptable because of automation, robotics, and sophisticated data analytics. 87% of manufacturers, according to a Deloitte survey, think digital technologies are crucial to their success in the future (Deloitte, 2020). Rapid prototyping and customization are now possible because of additive manufacturing (3D printing) development. [22]

Finance: Digitalization has significantly disrupted the financial services sector. Fintech businesses have evolved, utilizing digital technologies to offer cutting-edge financial services and products. Digital solutions like mobile banking, internet payment systems, and roboadvisors are revolutionizing how people and organizations handle their financial. According to a Statista analysis, \$168 billion was invested globally in fintech in 2020 (Statista, 2021). Digitalization has made Greater financial inclusion possible, as formerly underserved people now have access to financial services thanks to digital payment channels. [23]

Healthcare: By boosting diagnosis and treatment procedures, patient care, and remote monitoring, digitalization has completely changed the healthcare sector. Electronic health records (EHRs) have taken the role of paper-based systems, allowing easy access to patient data and encouraging provider collaboration. Virtual consultations and remote patient monitoring are now possible thanks to telemedicine and remote monitoring advancements, which have made in-person visits unnecessary. The use of telehealth surged 38 times in the United States during the COVID-19 pandemic, according to a McKinsey report (McKinsey, 2020). [8, 24]

Transportation: Digitalization has revolutionized mobility services, supply chain management, and logistics, upending the transportation sector. Autonomous cars, real-time route optimization, and GPS tracking have increased operational effectiveness and decreased expenses. The way consumers use transport services has changed due to ride-sharing platforms and mobility-as-a-service (MaaS) business models. The global market for connected cars is anticipated to reach \$166 billion by 2025, according to a report by Research and Markets (Research and Markets, 2021). [25,26]

Retail: Due to digitalization, the retail business has undergone substantial change. E-commerce platforms have completely changed how people purchase by offering ease, individualized suggestions, and a greater selection of goods. Retailers operating physical stores and online platforms have had to adjust to an omnichannel strategy. Advanced data analytics and AI-powered customer insights have improved customer experiences and



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enabled personalized marketing. Global e-commerce sales reportedly hit \$4.28 trillion in 2020, per eMarketer (eMarketer, 2021). [26,27]

Media and Entertainment: Digitalization has revolutionized the media and entertainment industry, impacting how content is produced, distributed, and consumed. Streaming services like Netflix, Amazon Prime Video, and Spotify have disrupted traditional broadcasting and music distribution models. User-generated content platforms like YouTube and social media have allowed individuals to create and share content globally. Digital advertising has transformed marketing strategies, allowing for targeted and personalized campaigns. [28]

Education: Digitalization has significantly impacted the education industry, which has opened up new learning opportunities and increased access to educational resources. Massive Open Online Courses (MOOCs), online learning platforms, and virtual classrooms have made distant and lifelong learning options possible. Virtual reality (VR), augmented reality (AR), and other digital tools and technology have improved participation and experience learning. The global ed-tech market is anticipated to reach \$404 billion by 2025, according to a HolonIQ analysis (HolonIQ, 2021). [27-29]

Energy and Utilities: The integration of renewable energy sources, increased energy efficiency, and improved grid management have all been made possible by digitalization, which has completely changed the energy and utilities sector. Smart grids fitted with sensors and cutting-edge analytics make real-time energy distribution monitoring and optimization possible. Monitoring energy use in homes and business buildings is now possible thanks to IoT devices and data analytics. Digital technologies greatly aid the move to cleaner and more sustainable energy systems. [30]

Construction and Real Estate: The construction and real estate industries have been upended by digitalization, which has improved project management, increased collaboration, and stimulated innovation. Design, planning, and coordination of construction projects are made easier by the use of building information modeling (BIM). Using drones and remote sensing technologies makes site inspections, surveys, and monitoring easier. Real estate platforms and mobile applications have altered property search and transaction processes, improving accessibility and transparency. [31,32]

Agriculture: Precision farming and other advanced agricultural techniques have emerged due to the digital agricultural revolution. Thanks to IoT devices, drones, and satellite imagery, farmers can now monitor soil conditions, improve irrigation, and forecast crop harvests. Algorithms powered by AI and data analytics offer insights for better decision-making, such as maximizing the use of pesticides and fertilizer. Farmers can engage with consumers directly through digital marketplaces and e-commerce platforms by passing conventional middlemen. [33]

Shifting Job Markets: Challenges and Trends

The digital revolution and ongoing digitalization have significantly changed job markets worldwide. The potential loss of jobs due to automation is one of the main problems that digitalization presents. Tasks once carried out by people are becoming mechanized as



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artificial intelligence, robotics, and machine learning technologies progress. According to a McKinsey Global Institute study, up to 800 million jobs could be lost to automation worldwide by 2030 (Manyika et al., 2017). Due to this development, workers must learn new skills and adjust to shifting job needs. [8]

The job market now has a sizable skills gap due to digitalization. While traditional talents may become less useful, there is a growing demand for digital abilities like data analysis, computing, and digital literacy. According to a report by the World Economic Forum, over half of all employees will require significant reskilling by 2025 (WEF, 2020). [3] Bridging the skills gap through upskilling and reskilling programs is crucial to ensure employability in the digital era.

The growth of the gig economy, which is characterized by transient contracts, independent employment, and on-demand labor, has been made possible by digitalization. Employers and employees can communicate directly through online platforms and mobile apps, offering more freedom and alternative sources of revenue. By 2023, gig workers are anticipated to make up 43% of the U.S. workforce, according to a study by Intuit (Intuit, 2020). This trend offers flexibility and raises worries about job security, benefits, and employee rights. It also presents opportunities and problems.

The COVID-19 epidemic accelerated the use of remote work and virtual collaboration. Utilizing cloud-based collaboration platforms, project management tools, and video conferencing, digitalization allowed organizations to switch to remote work arrangements. [34] In a Gartner survey conducted in 2021, 82% of business owners said they would permit workers to work remotely at least occasionally. The dynamics of the employment market may be affected by remote work since it allows businesses to access a global talent pool and lowers geographic restrictions. [35]

Workers with digital skills and expertise are in high demand due to digitalization. Across industries, proficiency in data analytics, cybersecurity, artificial intelligence, and digital marketing is becoming important. New professions, including data scientists, AI experts, cybersecurity analysts, and consultants for digital transformation, have emerged. These emerging job roles require a blend of technical skills, domain knowledge, and the ability to adapt to rapidly evolving technologies. [36-37]

The significance of lifelong learning and ongoing skill development to adjust to shifting job market conditions has been emphasized by digitalization. Workers must adopt a development mindset and continually learn new skills to be competitive and relevant. To address skill gaps and promote career advancement, upskilling and reskilling efforts at the individual and organizational levels have become crucial. [36-38]

The nature of work has fundamentally changed due to digitalization, necessitating that people have a wider variety of skills and adaptability. Traditional job functions are changing, and emerging hybrid roles need a blend of hard and soft abilities. Organizations prioritize crossfunctional cooperation, innovation, problem-solving, and critical thinking as they look for adaptable workers who can traverse the quickly changing digital landscape. [37-38]

While digitalization has advantages, it also brings issues with wealth inequality and the digital divide. Digital equipment, dependable internet access, and digital literacy abilities vary widely between locations and populations. Those who lack access and digital abilities may run into work difficulties and fall behind in the digital economy. Addressing these imbalances and ensuring inclusivity in digital transformation is imperative to prevent escalating already-existing inequities. [37-39]

The employment market is now more ethical and socially conscious due to digitalization. Automation and AI raise concerns about algorithmic bias, privacy, and the moral



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consequences of computer decision-making. To maintain a just and ethical digital workplace, concerns, including employment monitoring, data privacy, and the influence of automation on job quality and human well-being, must be carefully considered and addressed.[38-40] Digitalization has transformed recruitment and talent acquisition processes. Online platforms and artificial intelligence-based tools are used for talent sourcing, applicant tracking, and screening. Automated algorithms can match candidate profiles with job requirements, potentially streamlining recruitment. However, concerns about algorithmic bias and the need to maintain human oversight and judgment in decision-making are important considerations in these digital recruitment practices.[37-39]

Skills for the Digital Era: Adapting and Thriving

The digital era has ushered in a new paradigm for the job market, requiring individuals to possess diverse skills to adapt and thrive in an increasingly digitalized world. This section explores the key skills crucial for success in the digital era and highlights the importance of continuous learning and adaptability.

- **Digital Literacy:** Digital literacy is the starting point for successfully navigating the digital world. Utilizing digital technology, finding and assessing information online, and comprehending digital tools and platforms are all part of it. Email, web browsing, and word processing are examples of basic digital literacy. Advanced digital literacy includes data analysis, coding, cybersecurity awareness, and collaborative tools. People with digital literacy can better use digital tools and platforms for lifelong learning, problem-solving, communication, and job. [41]
- Problem-Solving and Critical Thinking: Critical thinking and problem-solving abilities are essential in the digital age for analyzing complex circumstances, coming to wise conclusions, and developing novel solutions. These abilities entail examining data critically, spotting patterns, weighing opposing viewpoints, and using creative thinking. With the vast amount of data and information available, individuals must develop the capacity to filter, interpret, and apply knowledge effectively to solve problems and make sound judgments. [42]
- Flexibility and Adaptability: The digital era is characterized by quick technical breakthroughs and constantly shifting employment needs. To succeed in this dynamic environment, flexibility and adaptability are crucial traits. People must be open to learning new skills, embrace change, and quickly adapt to new technologies and work processes. [38,39]
- Data analysis and literacy: Data has emerged as a priceless resource in the digital age. Understanding, interpreting, and effectively using data to guide decision-making are all parts of data literacy. People should be knowledgeable about gathering, analyzing, visualizing, and drawing conclusions from data. Individuals skilled in data analytics tools and procedures are better able to extract useful data, see trends, and make data-driven decisions. [40,43]
- Collaboration and Communication: In the digital age, where remote work, virtual teams, and worldwide connectivity have become commonplace, collaboration and communication skills are crucial. Through video conferencing, project management tools, and online collaboration tools, people must collaborate with coworkers, stakeholders, and clients in productive ways across digital platforms. Forging connections and resolving disagreements in a digital environment, it's essential to have strong written and spoken communication abilities. [44]



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- **Emotional Intelligence:** Building relationships, comprehending others' viewpoints, and working successfully all depend on emotional intelligence in the digital age of virtual communications. Self-awareness, empathy, active listening, and emotion management are all components of emotional intelligence. It allows people to move around in various work contexts, settle disputes, and develop close relationships with coworkers and customers. [45]
- Cybersecurity Awareness: In the digital age, cybersecurity has become a major worry for individuals and organizations. To safeguard sensitive data and ensure online safety, it is crucial to understand and put cybersecurity precautions into practice. Cybersecurity Ventures estimates that by 2025, cybercrime will cost the global economy \$10.5 trillion annually (Cybersecurity Ventures, 2021). Risks can be reduced, and digital assets can be protected by increasing cybersecurity awareness and implementing best practices. [46]
- Leadership and Digital Management: Leadership abilities incorporating a digital perspective are essential as digital transformation reshapes organizations. Leaders must be knowledgeable about developing technologies to manage digital projects and lead teams in a digital environment. In a Deloitte survey, 72% of executives said that the success of their organization depends on digital leaders (Deloitte, 2019). Organizations can successfully navigate the digital landscape and foster innovation with the help of effective digital management and leadership skills. [47]
- Cultural Intelligence and Diversity Management: In a connected, globalized society, cultural intelligence, and diversity management skills are essential. Collaboration across cultures and diverse viewpoints is now more common thanks to digitalization. Companies in the top quartile for gender diversity are 25% more likely to achieve above-average profitability, finds a McKinsey study (McKinsey, 2019). Cultural intelligence and the capacity to create an inclusive workplace influence innovation, creativity, and better decision-making. [8]
- Entrepreneurial Mindset and Innovation: Opportunities for innovation and entrepreneurship exist in the digital age. Entrepreneurial mindsets are characterized by initiative, risk-taking, resilience, and the capacity to spot and seize opportunities. 40% of the global workforce, according to the Global Entrepreneurship Monitor (Global Entrepreneurship Monitor, 2020), see entrepreneurship as a desirable career path. Developing an entrepreneurial attitude helps people manage the fast-changing digital landscape and promotes innovation and economic progress. [48]
- Automation and AI Literacy: Understanding the potential and constraints of these technologies is crucial as automation and artificial intelligence continue to change sectors. [49] Understanding how these technologies operate, their potential uses, and their effects on the workforce constitute automation and AI literacy. By 2022, one in five workers performing nonroutine jobs will rely on AI to improve their job performance, according to a Gartner report (Gartner, 2018). Understanding automation and AI enables people to work effectively with these technologies and use their promise.

Policy Implications: Navigating the Future

• Education and Skills Development: Prioritize equipping individuals with necessary digital skills through collaborations between educational institutions, industries, and governments, integrating digital literacy, coding, data analytics, and critical thinking into curricula and supporting lifelong learning and upskilling initiatives. [34-37]



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- **Inclusive Digitalization:** Bridge the digital divide by addressing affordability, accessibility, and infrastructure gaps, ensuring all socio-economic backgrounds have access to digital tools, reliable internet connectivity, and digital skills training. [28-29]
- Labor Market Policies: Adapt to changing work dynamics, support workers in non-traditional employment arrangements, promote fair working conditions, minimum wage standards, and protection of workers' rights in the digital economy. [3,4]
- Entrepreneurship and Innovation: Foster an environment that encourages entrepreneurship and innovation through streamlined regulations, access to capital, entrepreneurship training programs, and support for collaboration between startups, businesses, and research institutions. [50]
- **Digital Ethics and Privacy:** Establish regulations and standards to protect data privacy, promote transparency and accountability in data handling practices, address algorithmic bias and discrimination, and empower individuals to navigate the digital landscape safely.
- Collaboration and International Cooperation: Engage in knowledge sharing, best practices exchange, and policy coordination at regional and global levels to address common challenges, establish interoperable frameworks, and promote harmonization of policies related to data governance, cybersecurity, and cross-border data flows. [44]
- **Research and Development Investment:** Prioritize funding for research and development in digital technologies, and encourage public-private partnerships and technology transfer to drive innovation and the development of cutting-edge digital solutions. [28-29]
- **Anticipatory Policy Making:** Adopt an anticipatory approach to policy formulation by monitoring industry trends, emerging technologies, and job market dynamics to inform flexible, adaptive policy frameworks that respond to future disruptions. [43-45]
- **Data Governance and Regulation:** Establish clear frameworks for data protection, privacy, and ownership rights, ensuring transparency, informed consent, and accountability in data handling practices.
- **Digital Infrastructure Investment:** Prioritize investment in digital infrastructure, including high-speed internet connectivity, 5G networks, and broadband infrastructure in underserved areas to support the widespread adoption of digital technologies. [48,51]
- **Digital Trade and Cross-Border Collaboration**: Establish clear regulations and standards for cross-border data flows, intellectual property protection, and ecommerce transactions to facilitate digital trade and promote harmonizing regulations. [44,46]
- Regulatory Sandboxing and Innovation Hubs: Create regulatory sandboxes and innovation hubs to foster experimentation, collaboration, and the growth of digital innovation ecosystems.
- **Digital Resilience and Cybersecurity Policies:** Enhance cybersecurity awareness, establish robust incident response mechanisms, and promote information sharing to address growing threats in the digital era. [37,41]
- Social Safety Nets and Universal Basic Income: Explore social safety net measures to support individuals affected by automation and digitalization, including considering universal basic income or similar policies.



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Ethical AI and Automation Policies: Establish guidelines and regulations to ensure responsible development and deployment of AI and automation, addressing algorithmic bias, transparency, accountability, and societal impacts. [49]

Conclusion

In conclusion, there are significant ramifications for people, businesses, and societies from the digitalization of industries and the restructuring of job markets. As a result of technological breakthroughs and the increasing adoption of digital solutions, the nature of employment is experiencing a dramatic change. Although digitization has many potential, it has drawbacks that call for critical thought and proactive governmental responses.

Success in the digital age requires a variety of talents that are always changing. To successfully navigate the digital landscape, people must possess digital literacy, critical thinking, adaptability, data analysis, teamwork, creativity, emotional intelligence, and a dedication to lifelong learning. Education and skill development investments should be prioritized, the digital divide should be closed, data privacy should be protected, regulatory frameworks should be established, and inclusive and resilient labor markets should be supported.

Governments and politicians are essential in determining how work will develop. To create comprehensive policy frameworks that address issues and take advantage of opportunities presented by digitalization, they must work in conjunction with stakeholders from many industries. Policymakers can foster an environment that allows people and businesses to prosper in the digital age by investing in digital skills, ensuring inclusive access to digital technologies, establishing ethical guidelines, encouraging innovation and entrepreneurship, and fostering international cooperation.

However, creating policies is a continuous process that necessitates flexibility and reaction to the changing digital environment. To make decisions based on the best available data, policymakers should regularly evaluate societal requirements, technology improvements, and industrial trends. Collaboration, knowledge sharing, and public-private partnerships are essential to ensure that policies reflect the requirements of people, businesses, and society.

Prioritizing personal well-being while addressing the societal effects of digitalization is critical as we navigate the future in the digital age. We can create a future of work that fully utilizes the potential of digitalization while maintaining a just and equitable society by enacting forward-thinking policies that support innovation, uphold individual rights, cultivate inclusivity, and support sustainable economic growth.

Global in scope, digital transformation necessitates joint regional, national, and international efforts and collaboration. With their international counterparts, policymakers should actively exchange knowledge, share best practices, and coordinate policies. Together, we can use the power of digitalization to advance economic development, enhance livelihoods, and create a prosperous future for all.



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References

- 1. Brynjolfsson, E., & McAfee, A. (2014). The second machine age: Work, progress, and prosperity in a time of brilliant technologies. W. W. Norton & Company.
- 2. Autor, D. H. (2015). Why are there still so many jobs? The history and future of workplace automation. Journal of Economic Perspectives, 29(3), 3-30. doi:10.1257/jep.29.3.3
- 3. World Economic Forum. (2020). The Future of Jobs Report 2020. Retrieved from https://www.weforum.org/reports/the-future-of-jobs-report-2020
- 4. Jones, Jane. "The Impact of Climate Change on the Arctic." Nature 526.7574 (2015): 133-136.
- 5. Accenture (2021) The Productivity Push: How Digital Technologies Can Accelerate Economic Growth https://www.accenture.com/content/dam/accenture/final/markets/europe/document/Accenture-The-Productivity-Push.pdf
- 6. International Labour Organization (ILO). (2021). World Employment and Social Outlook: The Role of digital labour platforms in Transforming the world of Work. Geneva: ILO.
- 7. Deloitte. (2022). Digital disruption: A new era for industries. Retrieved from https://www2.deloitte.com/global/en/pages/technology-media-and-telecommunications/articles/digital-disruption-new-era-industries.html
- 8. McKinsey Global Institute. (2020). Digital labor markets in the age of AI: Policy implications for governments around the world. Retrieved from https://www.mckinsey.com/featured-insights/employment-and-growth/digital-labor-markets-in-the-age-of-ai
- 9. Muro, M., Maxim, R., &Whiton, J. (2019). Jobs lost, jobs gained: Workforce transitions in a time of automation. McKinsey Global Institute. Retrieved from https://www.mckinsey.com/featured-insights/future-of-work/jobs-lost-jobs-gained-what-the-future-of-work-will-mean-for-jobs-skills-and-wages
- 10. OECD. (2019). The digital transformation and the future of work: Contributions to the G20 Ministerial Meeting on Employment. Retrieved from https://www.oecd.org/employment/emp/The-Digital-Transformation-and-the-Future-of-Work.pdf
- 11. Liaw, S. T. et al. Primary care informatics response to Covid-19 pandemic: Adaptation, progress, and lessons from four countries with high ICT development. Yearb. Med. Inform. 30, 044–055 (2021).
- 12. Manyika, J., Lund, S., Chui, M., Bughin, J., Woetzel, J., Batra, P., &Ko, R. (2019). The age of analytics: Competing in a data-driven world. McKinsey Global Institute. Retrieved from https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/the-age-of-analytics-competing-in-a-data-driven-world
- 13. PwC. (2020). Industrial manufacturing trends 2020.
- 14. Soltani, M., Wang, J., & Song, L. (2018). A survey of artificial intelligence in healthcare: Challenges and barriers from a data-centric perspective. Journal of Big Data, 5(1), 1-21. doi:10.1186/s40537-018-0149-0
- 15. Upwork& Freelancers Union. (2020). Freelancing in America: 2020



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Vol. 11 Issue 11 November- 2021

ISSN: 2249-7382 | Impact Factor: 8.018|

(An open access scholarly, peer-reviewed, interdisciplinary, monthly, and fully refereed journal.)

- 16. Davenport, T. H., &Ronanki, R. (2018). Artificial intelligence for the real world: Transforming business through RPA, cognitive, and AI. Harvard Business Review, 96(1), 118-128.
- 17. Kraus, S., Jones, P., Kailer, N., Weinmann, A., Chaparro-Banegas, N., &Roig-Tierno, N. (2021). Digital Transformation: An Overview of the Current State of the Art of Research. SAGE Open, 11(3). https://doi.org/10.1177/21582440211047576
- 18. Armbrust, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R., Konwinski, A., ... &Zaharia, M. (2010). A view of cloud computing. Communications of the ACM, 53(4), 50-58.
- 19. Atzori, L., Iera, A., & Morabito, G. (2010). The internet of things: A survey. Computer networks, 54(15), 2787-2805.
- 20. Andal-Ancion A., Cartwright P. A., Yip G. S. (2003). The digital transformation of traditional businesses. MIT Sloan Management Review, 44(4), 34–41.
- 21. Berman S. J. (2012). Digital transformation: Opportunities to create new business models. Strategy and Leadership, 40(2), 16–24.
- 22. Deloitte. (2020). Industry 4.0 and manufacturing ecosystems: Driving the fourth industrial revolution.
- 23. Statista. (2021). Fintech: Total investment globally 2010-2020. Retrieved from https://www.statista.com/statistics/797272/total-global-fintech-investment/
- 24. Burton-Jones A., Akhlaghpour S., Ayre S., Barde P., Staib A., Sullivan C. (2020). Changing the conversation on evaluating digital transformation in healthcare: Insights from an institutional analysis. Information and Organization, 30(1), 100255.
- 25. Dremel C., Herterich M. M., Wulf J., Waizmann J.-C., Brenner W. (2017). How AUDI AG established big data analytics in its digital transformation. MIS Quarterly Executive, 16(2), 81–100.
- 26. Research and Markets. (2021). Connected car market: Global industry trends, share, size, growth, opportunity, and forecast 2021-2026.
- 27. eMarketer. (2021). Worldwide retail and e-commerce sales: eMarketer's updated forecast and new M-commerce estimates for 2016-2021.
- 28. Owen, D. (2019). Digital disruption and transformation in the media and entertainment industries. International Journal on Media Management, 21(1), 1-4.
- 29. HolonIQ. (2021). Global education technology (EdTech) market. Retrieved from https://www.holoniq.com/edtech-market/
- 30. Gottschalk P. (2006). Research propositions for knowledge management systems supporting electronic business. International Journal of Innovation and Learning, 3(6), 593–606.
- 31. Gheisari, M., Tamošaitienė, J., &Kaklauskas, A. (2019). Building information modeling (BIM) in construction industry: A review. Procedia Engineering, 221, 697-705.
- 32. Yiu, T. W., & Wang, D. (2018). Disruptive technology and the sharing economy in sustainable building and construction. Construction Innovation, 18(1), 46-64. https://doi.org/10.1108/CI-10-2017-0071
- 33. Debaeke, P., & Abichou, M. (2019). Digital farming: Benefits and drawbacks from the perspective of agronomy. Agronomy for Sustainable Development, 39(4), 1-15. https://doi.org/10.1007/s13593-019-0580-7
- 34. Nageshwaran, G., Harris, R. C. &Guerche-Seblain, C. E. Review of the role of big data and digital technologies in controlling COVID-19 in Asia: Public health interest vs. privacy. Digit. Health https://doi.org/10.1177/20552076211002953 (2021).



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- 35. Gartner. (2021). Gartner CFO survey Retrieved from https://www.gartner.com/en/newsroom/press-releases/2021-04-05-gartner-cfo-survey-reveals-74-percent-of-organizations-to-shift-some-employees-to-remote-work-permanently2
- 36. Gray P., El Sawy O. A., Asper G., Thordarson M. (2013). Realizing strategic value through center-edge digital transformation in consumer-centric industries. MIS Quarterly Executive, 12(1), 1–17.
- 37. Hagberg J., Sundstrom M., Egels-Zandén N. (2016). The digitalization of retailing: An exploratory framework. International Journal of Retail & Distribution Management, 44(7), 694–712.
- 38. Hai T. N., Van Q. N., ThiTuyet M. N. (2021). Digital transformation: Opportunities and challenges for leaders in the emerging countries in response to Covid-19 pandemic. Emerging Science Journal, 5, 21–36.
- 39. Hansen A. M., Kraemmergaard P., Mathiassen L. (2011). Rapid adaptation in digital transformation: A participatory process for engaging is and business leaders. MIS Quarterly Executive, 10(4), 175–185.
- 40. Jeong D. H., Cho K., Park S., Hong S. K. (2016). Effects of knowledge diffusion on international joint research and science convergence: Multiple case studies in the fields of lithium-ion battery, fuel cell and wind power. Technological Forecasting and Social Change, 108, 15–27.
- 41. Fraillon, J., Ainley, J., Schulz, W., Friedman, T., &Gebhardt, E. (2019). Preparing for life in a digital world: IEA international computer and information literacy study 2018 international report. Springer.
- 42. Katsamakas E. (2014). Value network competition and information technology. Human Systems Management, 33(1–2), 7–17.
- 43. Bharadwaj A., El Sawy O. A., Pavlou P. A., Venkatraman N. (2013). Digital business strategy: Toward a next generation of insights. MIS Quarterly, 37(2), 471–482.
- 44. Qualman, E. (2019). Digital leader: 5 simple keys to success and influence. Routledge.
- 45. Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. Imagination, Cognition and Personality, 9(3), 185-211. https://doi.org/10.2190/DUGG-P24E-52WK-6CDG
- 46. Morgan, S. (2021). 2021 cybercrime report: Cybersecurity ventures. Retrieved from https://cybersecurityventures.com/cybersecurity-ventures-2021-cybercrime-report/
- 47. Deloitte. (2019). The digital leadership imperative: Why leaders must adapt to the digital age.
- 48. Global Entrepreneurship Monitor. (2020). Global Entrepreneurship Monitor 2020/2021 global report.
- 49. Arntz M., Gregory T., Zierahn U. (2017). Revisiting the risk of automation. Economics Letters, 159, 157–160.
- 50. Bouncken R. B., Kraus S., Roig-Tierno N. (2021). Knowledge-and innovation-based business models for future growth: Digitalized business models and portfolio considerations. Review of Managerial Science, 15(1), 1–14.
- 51. Hansen A. M., Kraemmergaard P., Mathiassen L. (2011). Rapid adaptation in digital transformation: A participatory process for engaging is and business leaders. MIS Quarterly Executive, 10(4), 175–185.