Chapter 6
The Future of Work Human Life and Labor in a 6G World

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ABSTRACT

With the advent of 6G, human life and labor will undergo a major transformation. Ultra-high-speed data, ultra-low latency, and seamless integration with AI, VR, and AR will redefine how we work and interact. Automation, virtual workplaces, and evolving job structures will shape a 6G-driven society. While some repetitive, manual jobs will disappear, new roles in technology development, cybersecurity, and immersive technologies will emerge. Continuous reskilling and upskilling will be essential to staying relevant in this fast-changing landscape. Implementing 6G presents challenges, including data privacy, cybersecurity, and the digital divide, which must be addressed to ensure equitable access. Additionally, deploying 6G infrastructure may introduce new ecological concerns, requiring sustainable solutions. This chapter explores 6G's impact on the future of work, associated challenges, and emerging opportunities. It examines labor markets, technological innovation, and ethical considerations, focusing on human life, labor, and the role of 6G in shaping society.

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1. INTRODUCTION

A technological revolution is starting up just ahead for the planet. Society has started to transform its approaches to connectivity after 5G technology was introduced. By the early 2030s 6G technology will bring new ways to connect human lives with computers while creating improved augmented experiences. Instead of adding quick connectivity like 5G, 6G will make human life attentively connect with AI systems while orchestrating augmented experiences and advanced automation. The most significant change that 6G technology will bring affects the work environment of the future. Human work patterns will keep changing because of both expanding remote workplace systems and automated processes in the future. Trusted activities will fade away during this transition which will give birth to fresh job types supported by AI systems and virtual realities. These changes will reform both our careers and our way of living, (Zhang & Zhang, 2023). 6G technology can make operations run faster while linking the entire world and creating more ways to develop economies evenly. The value of 6G technology needs to be weighed against its potential hazards which affect both employment and sustainability.

1.1 Technological Framework of 6G

The development of 6G depends on 5G technology yet it adds features that wireless communications cannot provide today. The main features of 6G will consist of:

1. 6G technology will operate close to 1 terabit per second peak speeds for direct data connections that let users perform holographic communications from anywhere even perform remote surgeries and access complete digital information sets anywhere in the world.
2. 6G technology planning includes the natural integration of artificial intelligence into its network design. The network will manage data better and forecast trends automatically to make systems that respond to needs directly without us. The decrease in response time will make instant feedback and communication possible for auto vehicles, telemedicine, and real-time financial trading systems.
3. 6G will connect a huge number of devices worldwide to run improved Internet of Things operations across complete cities and shipping routes.
4. 6G infrastructure enables people to widely access holographic visualization and augmented reality technologies that provide new ways to learn and work from virtual spaces, (Xu & Wang, 2021).