The Struggle to Keep Up: The Impact of Rapidly Changing Technology

From communicating with one another to accessing information, technology has revolutionized the way we live our lives today.

However, the speed at which technology changes can be overwhelming, leaving groups of people left out or behind. This rapid innovation can take a toll on mental health, leading to feelings of stress and anxiety while straining work-life balance and widening socio-economic divides.

COVID-19 and the Adoption of New Technology

The world experienced unprecedented change in the past few years due to the persistent impact of the global COVID-19 pandemic. It caused a massive shift in how people interact with each other and their environment. Many of the changes once thought of as a temporary solution for getting through quarantine now cement themselves in our daily lives, acting as a catalyst for swift innovation.

One of the most apparent changes is the rapid adoption of new technologies. New tech emerging from the COVID-19 pandemic was essential for communication, working from home, online education, shopping, entertainment, and more. In many cases, these new technologies have helped to keep people connected when needed more than ever.

But as rapid shifts in tech continue barreling forward, it can also be difficult for people to keep up, leading to frustration, overwhelm, isolation, and more. But the challenges that come with rapid change aren't only experienced on an individual level but across businesses and social groups at large.

The Impact of Rapid Technological Change

The rapid acceleration in the development and adoption of new technologies spans big data, machine learning, artificial intelligence, robotics, 3D printing, biotechnology, renewable energy technologies, satellite, and drone technologies--the list goes on.

While these developments have brought remarkable advances and opportunities, they have also caused significant disruption.

This rapid technological innovation can outpace societal and government capacity to adapt to the changes it brings. We've seen drastic shifts in labor markets, increased inequality among people, and the raising of ethical questions about the implications of some technological advancements.

Impact on Business & Industry

The rapid adoption of new technology was one of the most notable industry changes brought about by the COVID-19 pandemic. In a few months, many had to transition from traditional office tools to online collaboration and communication platforms like Zoom, Microsoft Teams, Slack, and Skype. There was also a boom in e-commerce as more people turned to online stores for their shopping needs.

McKinsey & Company released a 2020 report on "How COVID-19 has pushed companies over the technology tipping point—and transformed business forever." It outlined responses to a survey highlighting COVID-19's role in speeding up the "adoption of digital technologies by several years—and that many of these changes could be here for the long haul."

Executives began shifting their mindsets on the role of technology in business operations, transitioning from using technology mainly for cost savings to investing in new technology for competitive advantage. This change in attitude could have significant long-term implications for how businesses operate--particularly around remote versus in-person work.

The Tension Between Remote vs. In-Person Work

Forbes recently reported the remote work "social experiment" the COVID-19 pandemic initiated and how it's now causing tension between workers and employers. According to a Stanford study in 2020, productivity increased by 13% due to remote work, while workers reported better work-life balances, improved work flexibility, and more. Now, as we move further away from pandemic shutdowns, businesses are mandating employees to return to in-person work.

The Forbes article states that this mandated return to the office may exacerbate proximity bias in the workplace, which is the "tendency of people to favor and give preferential treatment to individuals who are physically present or working near them."

Proximity bias within the workplace can lead to on-site workers being perceived as more engaged or dedicated than those working remotely. This perception could decrease the advancement of remote workers, foster poor communication, and leave workers feeling isolated.

Impact on Social & Economic Divides

While tech can do wonders for bringing people together, rapid technological change also has the potential to perpetuate existing divides and further widen existing socio-economic gaps.

Women are particularly underrepresented in STEM jobs that may benefit from recent technological change. The United Nations Conference on Trade and Development (UNCTAD) reported that "women are 12% less likely than men to use the internet and 33% less likely to do so in the least developed countries, widening the existing gender digital divide."

There is also a lack of gender equality in science, technology, and innovation, leading to lost talent and potential. While some new technologies have advanced gender equality, such as digital tools that make it easier to organize grassroots movements, the lack of diversity among researchers and developers can lead to gender biases and unaddressed needs specific to women.

There is also a widening gap in earnings as companies integrate more technologies into their processes because it drives up demand for higher skills in the workforce. This bias for "higher-skilled" workers creates a wage premium that "lower-skilled" workers cannot receive. Skill-biased technological change is most visible in earnings between college and high-school graduates in the United States and their equivalents in other countries, and this gap has been increasing.

UNCTAD states that "recruitment tools using algorithms, for example, can operate based on the unconscious biases of developers." This bias means new technology can enable, reinforce, or worsen existing inequality and discrimination.

The Mental Health Implications of Rapidly Changing Technology

It is true for many that the rapid adoption of new technology has revolutionized the way people stay connected and interact with each other. But framing technological advancement within widening socio-economic divides, rising tensions in workplace culture, and facing a new tool or device to learn constantly highlights the critical need to understand what's happening to people's mental health in the age of digital transformation.

Keeping up with technology can be particularly daunting for those who are not tech-savvy or have limited access to resources. This limited knowledge or access can lead to insecurity and inadequacy, as individuals may feel like they're falling behind or explicitly left out.

Increased Isolation, Depression & Anxiety

While technology offers many positive effects for those who have access to it, such as improved access to information and increased connectivity, it can also have potentially dangerous implications for mental health. For example, overusing technology can decrease meaningful physical interaction, leading to loneliness and depression. Medical News Today shares that "technologies, such as social media, are designed to bring people together, yet they may have the opposite effect."

Evidence suggests too much technology can hurt the mental health of anyone, especially developing children and teenagers. A 2016 systematic review examined the link between social networks and mental health issues, such as depression and anxiety, finding a clear association between the two. And further research shows young adults between the ages of 19-32 with high social media engagement were more than three times more likely to feel socially isolated than those who did not use it as frequently.

It is essential to be mindful of how much time we spend on our devices and their impact on our mental health. While technology can provide convenience and connection, it is also essential to recognize its potential risks and strive to maintain a healthy balance between our virtual and real-world relationships.

Ending The Struggle to Keep Up

Rapidly changing technology is here to stay and has undoubtedly changed our lives. It can be overwhelming to keep up with all the changes, but we must recognize the challenges these changes bring and create strategies to make it easier for those struggling.

Technology needs systemic interventions to lift the weight on individuals left out of the ever-evolving technological landscape. Policy considerations recommended by the [UNCTAD](#) include "addressing the education-employment nexus, building endogenous innovation capacities, developing digital competencies to bridge digital divides, and strengthening the capacity for technology foresight."

The Bottom Line

The impact of rapidly changing tech on socio-economic divides highlights the importance of considering equity when developing new technology. It is essential to create inclusive solutions that can bridge existing gaps and enable access to opportunities for all.

Continued innovation in the tech space is now the norm, and we should embrace it to celebrate the positive contributions technological advancement can bring to society. But to uplift the mental health of those in our communities, intentional considerations must be made to ensure no group is left behind.

Keywords: technology, mental health, new technology, rapidly changing technology

Sources:

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- [UNCTAD: The Impact of Rapid Technological Change on Sustainable Development](#)
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- [Social Networking Sites, Depression, and Anxiety: A Systematic Review](#)
- [Social Media Use and Perceived Social Isolation Among Young Adults in the U.S.](#)