Whitepaper

Embracing Digital for Good

Abstract

Technology has no real purpose on its own. It is the intent with which technology applications are used that categorizes them to be leveraged beyond utility, for good and meaningful purposes. Though the overall technological advancement through the ages has led to upliftment of humankind in terms of health and quality of life, there is always an underlying worry about the negative impact that accompanies the benefits. Technology is a means to an end, not the end itself. The purpose must be defined and then technology can enable this purpose.

Key Takeaways

Introduction

Digital for good is born from the realization of the companies of their moral responsibility towards the society and ecosystem in which they operate. Enterprises are using the power of technology to be directed at causes that result in social benefits. **The objective is to bring about measurable change in the quality of work and life of society, especially in groups that are vulnerable and prone to be excluded from the overall progress.**

Here we first look at how digitalization is impacting the life of an ordinary individual, followed by benefits reaped by the ecosystem created by companies and society. Finally, how digitalization is playing a key role in the larger part of the economy, helping us propel towards sustainable development.

People

Tech for Social Good

Today there are frontier technologies like artificial intelligence, blockchain, augmented reality, internet of things (IoT), cloud, and many more which have become powerful modes for transformation. There are innumerable applications of these tools which have a huge potential to bring about a large-scale revolution across industries.

Blockchain – *Secure*

Telecom Regulatory Authority of India (TRAI) established a Do Not Disturb (DND) registry in 2010 however, while the registry has more than 230 million subscribers, unregistered telemarketers continue to spam customers, obtaining their consent through fraudulent tactics. Tech Mahindra in collaboration with Microsoft worked closely with TRAI in creating a distributed ledger technology (DLT) which is a blockchain-based solution for the ecosystem. It brings all relevant parties (TSPs, RTMs, principal entities, and scrubbers) in the ecosystem onto the blockchain leading to a tight coupling between stakeholders.

The solution helped our client to be the first telecom service provider (TSP) to be unsolicited commercial communications regulations compliant by TRAI in February 2019. This helped them enable 100 verified communications between enterprises and customers.

Cloud – *Connectivity*

Healthcare is one industry where people directly experience the benefits of digitalization. One such instance of benefit in healthcare is patient support in rural areas. The medical industry has made huge strides in the past few years. Yet there are issues of rising healthcare costs and accessibility in rural areas. Non-adherence to medicines has a far-reaching impact. It worsens the disease and strains the already burdened healthcare system. Tech Mahindra proposed a digital platform **CONNECTSENSE,** which has multiple modules of telehealth, telemedicine, and medication adherence. Along with an automated contact center infrastructure, the patient support program module unlocked digital possibilities through multi-channel interfaces. The platform improved the patients' medication adherence by **50%** enabling better disease management for patients and improved revenues for the client.

Tech and Stakeholder Model

There has been a shift in the way companies look at value creation. Milton Friedman famously wrote in the 1970s that the social responsibility of businesses is to increase profits.

However, today, we realize that generating profits cannot be the sole objective. Organizations have a significant impact on the operating ecosystem, society, and environment. The intent is to operate in a way that ensures positive contribution towards all the stakeholders, which include shareholders, customers, employees, suppliers, and communities.

The value creation for stakeholders and technology has become an integral part of the overall company strategy. Many companies are developing or have

plans to develop Technology for Social Good. Tech for Good is not only in harmony with the companies' business strategy but aligns with it, even more than it aligns with the company's CSR strategy.

The social benefit is not just a by-product or a tick in the box of the CSR initiatives. It is becoming an integral way of working as a part of the organization's DNA.

Ecosystem

Great things happen when we work together. While the organizations have their priorities set, with their business strategy, objectives, mission, and purpose converging, all that remains is execution. Organizations need scale and reach, which they find in partnerships and community engagement.

The large-scale impact of technology can be achieved if companies work in collaboration with partners. The "partners" which can be government bodies or NGOs, already have accessibility and presence at the grass-root level.

Companies are partnering with the government to enable the proliferation of benefits in rural remote areas. Not just providing access but helping society in developing an ability to understand and use technology to their benefit. Bringing the isolated portion of society into the mainstream technology fold also leads to the expansion of the market for business growth.

ConnectSense, the telehealth platform by Tech Mahindra, has collaborated with the doctors from Nightingale Home Health services for audio and video consultation for a leading pharma player. The objective of this project was to bring basic medical consultation to the doorstep of rural pockets.
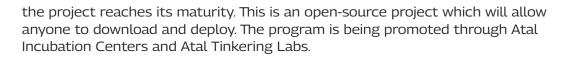
Democratization of Skills and Ideas

Another way the companies are utilizing their network is by creating communities and forums for the exchange of ideas and encouraging innovation.

Makers Lab

Tech Mahindra created Makers Lab intending to explore the potential of innovation and research. The mission of Tech Mahindra's research and development arm, Makers Lab, is to promote technology innovation by providing a common platform where academia, industry, and government can come together to recognize transformative ideas and create disruptive solutions. Makers Lab has collaborated with 10 colleges globally and opened centers across seven countries.

BHAML

While working with a group of students in a remote part of India, the Makers Lab team realized that there is a huge potential for ideas and passion for technology among students. The limiting factor is the language English which remains the primary language used for coding. The Tech Mahindra team created the Bharat Markup Language Editor or BHAML which can be downloaded by any student to code in their local language. Effectively, students will be able to code in 27 mother tongues and 1,645 languages once

the project reaches its maturity. This is an open-source project which will allow anyone to download and deploy. The program is being promoted through Atal Incubation Centers and Atal Tinkering Labs.

Metavillage

Remember the time when as kids we were so engrossed in playing games that we lost track of time? Gamification combines motivation and fun elements to influence user behavior and increase engagement. Applying gamification in learning and development (L&D) can be very productive as it enhances engagement and gives learning a purpose. With this objective, Makers LabTM announced the launch of a first-of-its-kind, 'Meta Village', a digital twin of Pargaon, a village in Maharashtra to gamify learning on the Roblox platform. With the launch of the Meta Village, Tech Mahindra will drive innovation in the education sector at the grass-roots level. The Meta Village will enable the students to play on Roblox to learn the basics of computers and coding in Bharat MarkUp Language (BHAML). [1]

Economy

Tech for Sustainable Development

Sustainable development was first coined in the late 1980s when we realized that development to meet present needs should happen without compromising the ability of future generations to meet their needs. While one reason for climate change and depleting resources is the companies driving global businesses, the same companies will be instrumental in bringing the required solutions. One area on which we must focus to have a large-scale impact is transitioning into a Circular economy.

Circular Economy as A Model for Sustainable Development

The circular economy is a model in which maximum value is derived from the resources used and minimum waste is generated. Ideally, every by-product or waste generated should be used as a resource, thus enabling a **sustainable closed-loop economy.** In an industrial system, a circular economy is regenerative, where the end-of-life concept is replaced with restoration. [3]

The shift in paradigm for circular economic activities can only be enabled by technology. Automation, recycling, optimization of resources, and many such tasks are possible because of technological tools that facilitate the interconnectedness of industries.

i.Sustain is a Tech Mahindra framework on sustainability which is powered by SAP intelligent technologies and SAP analytical cloud (SAC) to manage and improve the performance of the sustainability data to achieve ESG and sustainability goals. We leverage Tech Mahindra's deep domain know-how and consulting capabilities and combine our SAP technology strength to provide solutions. We convert raw ESG data using emission and conversion factors into meaningful insights as per the reporting requirements.

Reuse, Reduce, Recycle

The core principle of circular economy is the 3 Rs – reduce, reuse, recycle. For a viable solution, there must be a positive correlation between the economic value derived from the components and the costs of the supply chain. It is critical to maintain the value of a product in the economy for as long as possible by keeping a record of product design, composition, and condition.

While the primary objective for using technologies is making systems more efficient, these technologies play a key role in devising sustainability solutions as well. Sustainability and efficiency are not exactly mutually exclusive.

Supply Chain

The supply chain forms a very important part in connecting the parts of the circular economy loop. Supply chains are designed by interconnecting all the members of the value chain – from suppliers, manufacturers, distributors, and consumers and closed with a reverse mechanism.

Supply chains need to be connected, optimized, efficient, and secure. Technologies like IoT, AI, and blockchain enable smart supply chain operations.

With IoT-enabled devices, there is real-time visibility of goods from origin to destination, in freight vehicles there are multiple driving parameters that can be captured and help in route optimization, overall reducing fuel consumption and reducing emission.

Artificial intelligence can analyze transport data in terms of volume, route, and vehicles and identify patterns for shared transportation. Similarly, better inventory and raw material planning can be done by analyzing customer demand data and other factors that affect the demand.

Blockchain which is the next disruption in technologies has multiple use cases in the supply chain. By connecting multiple stakeholders through smart contracts its application in managing financial transactions is quite popular. However, because of its decentralized nature and its application in tracing secure information, there are multiple business opportunities across industries.

Tech Mahindra has partnered with a **StatWig** to implement a vaccine traceability platform Vaccine ledger using blockchain. Vaccine Ledger is an open-source platform designed to perform end-to-end traceability at the vial level for vaccines in the global supply chain. It prevents the need of replacing the existing system, therefore, removing the barriers to adoption.

Conclusion

The role of digital technology is more than that of making companies agile and profitable. If digital adoption has widened the social divide, it is still digitalization only that can provide the scale to deliver far-reaching results. Every organization is implementing advanced technologies to be competitive and grow its business. Along with business growth, companies are shifting their perspective to include the ESG embedded operations in long-term strategic priorities.

References

1   Mahindra, T. (n.d.). Tech Mahindra launches first of its kind, 'meta village' to gamify learning. www. techmahindra.com.
https://www.techmahindra.com/en-in/techm-launches-meta-village/

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