AVASANT FOUNDATION

Harnessing AI for Positive Social Impact

Each new technology sparks debate about its impact on employment. There are two contrasting perspectives. Optimists view the new technology as alleviating workers from the most grueling tasks, freeing them to do more meaningful work. Pessimists, on the other hand, sound alarms about widespread unemployment, especially for those at the bottom of the career ladder.

Artificial intelligence (AI) is the latest new technology that is the subject of this debate, and this is especially of concern in marginalized and underserved communities, whether in prosperous countries or developing countries. These communities face challenges getting the education and resources they need to climb the career ladder, especially with digital skills training. Opportunities that exist are often lower-skilled jobs—exactly the jobs that AI might automate. So, will AI take those jobs away and worsen the disparities in opportunities? We do not see it that way. Although automation will no doubt take away some lower-level jobs, we believe that AI can help marginalized communities grow and prosper by positively impacting education, employment, and entrepreneurship. This report outlines how this will come about.

The Positive Impact of AI on Education

It is a serious problem. A total of 16% of primary and upper secondary school children are not part of formal education. One in 10 is not enrolled in primary schools. A total of 122 million, comprising 48% of girls, are out of school, and nearly 30% of the global out-of-school children come from the Sub-Saharan Africa region. The problem is not limited to developing nations. According to the Federal Communications Commission, 24 million Americans still lack broadband connectivity, with many being poor or living in rural areas that will remain unserved without reform of the broadband policy. The National Center for Education Statistics highlighted that there have been inequities in access to online programs, and it worsened during the pandemic. Social factors and biases toward certain communities are also reasons that hinder improving students' learning.

Schools in rural areas need technology support and qualified and well-trained teachers. Lack of vocational studies support outside school is lacking as a one-size curriculum will not lead to any impact due to the presence of diverse minority groups. The prolonged existence of all these factors, individually or collectively, leads to educational inequity.

We believe AI can provide a solution to address the issue of educational inequity for marginalized communities. AI has the potential to bring new opportunities in the education and employment landscape, and it can also facilitate distance learning for students and teachers, hence breaking geographical barriers.

The challenge of customized learning plans and curriculum development to meet the needs of every student can be resolved by AI-powered learning systems. The learning systems can address the gaps and improve dropout rates.
Platforms such as CENTURY, Whizz Education, Knewton, and Dream Box offer tailored guidance aligned with a student's specific learning requirements. There are over 1.5 billion students globally, and virtually all of them could benefit from implementing adaptive learning technology with tools that customize educational content according to individual student capabilities.

The Positive Impact of AI on Employment

Work rapidly changes as technology, robotics, automation, and AI reshape the workplace. The traditional boundaries between human and machine tasks are changing the roles and responsibilities of workers. With the increasing prevalence of automation, machines are poised to handle numerous routine cognitive and physical activities, from operating machinery and performing administrative tasks to food preparation.

In low-income nations, less than 1% of the workforce faces potential loss of jobs because of automation. But this figure rises to 5.5% in high-income countries. Gender also plays a crucial role, as the proportion of women potentially affected by automation is more than double that of men. Conversely, augmentation influences a larger share of employment, potentially impacting 10.4% of jobs in low-income countries and 13.4% in high-income countries. However, it's essential to consider infrastructure limitations, which may hinder the adoption of these technologies in lower-income countries and could potentially widen the productivity gap.

Although, as discussed above, AI can take away jobs from lower-skilled workers, it can also positively impact jobs. It can usher in new opportunities and potentially narrow the divide between highly skilled and less skilled occupations. It can also create unique platforms for freelancers and contract-based workers, fostering new job opportunities.

Although it enhances productivity and economic growth, it poses challenges like job displacement and changing skill demands. Organizations must prioritize human skills such as problem-solving, empathy, and creativity to adapt. As AI automates routine tasks, the future job landscape emphasizes a blend of human abilities, necessitating roles integrating technology with skills like interpretation and design. Design thinking methodologies can help shape jobs that meet the evolving demands of the work environment.

Of course, introducing AI also means there will be new jobs for workers who implement and support AI systems. The demand for specialists in AI will increase by 40%, equating to 1 million jobs, fueled by the ongoing transformation of industries driven by the widespread adoption of AI technologies.

AI is crucial in fostering employment opportunities for marginalized communities through various means. Firstly, it facilitates skills development by offering access to AI-based training programs, empowering individuals from marginalized backgrounds to acquire expertise in emerging technologies. AI-driven job matching platforms connect job seekers with suitable employment options, contributing to a more inclusive job market.

International Finance Corporation (IFC)-affiliated online education entities like Coursera and Andela utilize AI for analyzing student test scores, enabling the delivery of personalized skilling recommendations. Similarly, Revelo, a Brazilian company associated with IFC, amalgamates data from online education and job platforms to offer automatic upskilling suggestions.

Integrated psychometric assessments are crucial in identifying youth's latent talents and entrepreneurial potential. KnackApp, for instance, employs a game grounded in neural and behavioral science to measure 2,500 micro-behaviors, including active and passive decisions, reactions, and exploration. Subsequently, it aligns youth with suitable skill development programs spanning various sectors, such as sales, retail, construction, hospitality services, and data science. Singapore's MyCareersFuture, supported by the government as a job-matching platform, leverages AI to analyze real-time labor market information from multiple job boards. This analysis predicts upcoming job opportunities and skill requirements. Timely access to market trends empowers education and training institutions to adapt their curriculum to meet employer needs, shape government policies and investments, and enhance the overall efficiency of the workforce development system.

The Positive Impact of AI on Entrepreneurship

The backbone of the global economy consists of micro, small, and medium enterprises (MSMEs), comprising 90% of all businesses and contributing nearly 70% to global jobs and GDP. These enterprises are crucial in the supply chains of industries around the world. Additionally, MSMEs are pivotal in fostering economic inclusion, supplying goods and services to impoverished and underserved markets, and offering entrepreneurial opportunities, particularly for women. Moreover, they serve as sources of innovation, introducing fresh ideas and products, adapting to change more swiftly than larger counterparts, and exhibiting substantial growth potential.

The potential for smaller firms is enhanced with the emergence of new technologies and globalization. Nevertheless, the conventional challenges confronting MSMEs, including inadequate financing, challenges in leveraging technology, limited managerial capabilities, low productivity, and regulatory burdens, become more pronounced in a globalized, technology-driven environment.

Money is also a problem. Approximately 1.7 billion individuals worldwide lack access to banking services, meaning they do not possess accounts with financial institutions or mobile money providers. Nearly half of these unbanked individuals come from the poorest households globally. Moreover, in certain countries, businesses encounter challenges in obtaining financial support. According to the World Bank, 20% of African MSMEs identify financial constraints as the primary hurdle to sustaining their operations.

Despite their significance, many MSMEs need help embracing the Fourth Industrial Revolution due to issues such as a shortage of skilled personnel and limited access to capital. These hurdles impede the effective management of data resources, hindering the ability of MSMEs to make well-informed, data-driven strategic decisions. Consequently, this significantly impacts their prospects for survival, prosperity, and resilience in the continually evolving business landscape.

Although, as noted earlier, AI can automate some jobs out of existence, it is more than balanced by its potential positive impact on small businesses. It offers a promising solution to address the fundamental barriers inhibiting financial inclusion, particularly the difficulties associated with identity verification and the absence of conventional data for assessing the creditworthiness of underserved populations.

AI-driven financial inclusion products, which have already started to be implemented, eliminate the need for traditional credit scores by analyzing individuals' digital footprints. AI platforms like Medha, owned by CreditVidya, utilize transaction history and device data to determine the applicant's capability. CreditVidya has collaborated with banks and non-financial institutes, leading to an increase in the loan approval rate.

Utilizing generative AI, conversational banking interfaces can facilitate communication, overcome illiteracy, and broaden access to financial services for a more diverse audience. Generative AI has played a pivotal role in fostering the emergence of embedded finance, subsequently paving the way for innovative financial products and services that have significantly empowered small-scale vendors. This paradigm shift has brought forth a wide range of financial offerings, including embedded lending, thereby revolutionizing the landscape of financial accessibility and support for businesses at the grassroots level.

AI can help financial institutions be more inclusive and offer opportunities to a broader range of consumers. Paytm, in India, for example, has been using AI to improve its predictive financial tasks and provide more accurate creditworthiness assessments for MSMEs. Paytm Soundbox, a portable device for payment alerts, has impacted digital payments in India. Its impact on financial inclusion and the growth of digital payments in India is evident through its rapid adoption and role in driving cashless transactions in the country.

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During a personal interaction with one of the vendors, Shriram, at a local market in New Delhi, India, said, "It is easier for us to keep track of all the payments that we receive through the app, and Soundbox helps us with the confirmation of the amount sent to us."

MSMEs can also get help from AI in scrutinizing extensive datasets to uncover discernible patterns and valuable insights that can guide strategic business decisions. Exploring the integration of AI has become a pivotal initiative for small enterprises aiming to augment their operational efficiency. Incorporating AI-driven tools and software facilitates the automation of routine tasks, streamlining operational processes and providing valuable data for informed decision-making. Adopting AI enables small businesses to optimize their operations, reduce expenditures, and allocate resources more effectively. Consequently, this strategic utilization empowers them to focus on core business activities, fostering growth.

The potential of AI for small businesses is substantial, given its ongoing advancements. Progress in NLP, ML, and predictive analytics has rendered AI a valuable resource for gaining insights into customer behavior, market trends, and business opportunities. Moreover, the deployment of AI-powered chatbots and virtual assistants holds the potential to elevate customer service and enhance the overall customer experience. This is particularly advantageous for smaller businesses with limited resources, allowing them to leverage AI for improved customer interactions and operational efficiency.

Effectively incorporating AI requires business owners to adopt a strategic approach. They should initiate the process by evaluating their needs and pinpointing areas where AI can bring value. Investing in AI technologies that align with the company's goals and capabilities is imperative. Moreover, ensuring employees receive adequate training and upskilling opportunities is crucial for a seamless transition and maximizing the benefits of AI deployment.

Limitations of Generative AI

Generative AI, while introducing changes to various sectors, also presents risks that require attention to fully harness its potential benefits. In our research byte *Generative AI Gold Rush: Mitigating The Risks*, published in September 2023, we have underscored societal risks and dilemmas, such as racial or social biases, misinformation, ethical and transparency concerns, and data privacy threats. However, it's important to note that generative AI also promises to revolutionize education.

While AI presents opportunities for personalized learning and increased student engagement, the growing integration of AI and Edtech in the education sector is giving rise to complex challenges. We must adopt a strategic approach to fully exploit this technology's potential while safeguarding students' privacy.

Data privacy is not just important, it's critical. The potential consequences of mishandling data, such as unauthorized access and inappropriate use, underscore the urgency of protecting privacy. This necessitates the implementation of robust privacy and security measures, the promotion of transparency, the education of stakeholders, and the advocacy for strong legal protections.

Conclusion

AI possesses the potential to enhance educational excellence, create job opportunities for marginalized individuals, and offer advantages to small businesses.

While acknowledging the challenges, AI proposes a comprehensive solution for the multifaceted issue of educational inequity, emphasizing its role in intelligent tutoring systems, personalized learning, and curriculum development. The evolving job landscape, characterized by a blend of human and technological skills, is highlighted, with AI playing a crucial role in skill development and job matching for marginalized communities. Also, for small enterprises, AI seems to provide promising solutions to address barriers inhibiting financial inclusion, demonstrating how AI can empower smaller businesses and enhance their resilience.

In conclusion, AI offers transformative potential, but its integration necessitates a thoughtful, ethical, and inclusive approach to address the challenges and unlock the benefits for global progress.

About the Avasant Foundation

Over the last ten years, the Avasant Foundation has been instrumental in delivering job-centric digital skills and enabling employment opportunities. The foundation utilizes training in digital skills to stimulate job growth.

Avasant Foundation programs have empowered more than 2,200 graduates, generating over 2,000 jobs in 12 regions worldwide and positively influencing the lives of over 32,000 individuals.

In addition to its focus on education, the Foundation actively provides digital entrepreneurship training, aiming to promote self-employment and create potential job opportunities for others.

The Avasant Digital Skills Training program aims to empower disadvantaged youth in emerging economies by imparting sought-after technology and digital skills. Additionally, it strives to equip them with crucial soft skills, including customer service and communication, essential for thriving in a corporate environment.

About the Authors

Chitra Rajeshwari is the Executive Director at Avasant Foundation and Principal at Avasant Global Development practice. A seasoned leader and a change agent with experience in Private sector, Sustainability and Social development work. Leads the development and implementation of the foundation's mission through global initiatives to empower deserving young women and men through education, employment & entrepreneurship in the digital economy. For more information, please contact Chitra at chitra.rajeshwari@avasantfoundation.com

Kashika is a lead sustainability expert with over 7 years of experience in ESG and Corporate Social Responsibility, possessing significant experience in the development of ESG strategy, social impact projects, and stakeholder engagement.

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