

# AI and Girls in Rural Areas: Ensuring Inclusive Technological Advancement

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During the 1990s in the United States, adaptive education initiatives commenced. The utilization of artificial intelligence (AI) spans across diverse sectors, with its indispensable role in education. AI literacy refers to the comprehensive understanding and competencies possessed by individuals who engage with AI. It facilitated a highly individualized educational approach, wherein machines and students engage in one-to-one interactions. By harnessing the synergistic potential in education, a paradigm emerges wherein learning becomes more tailored, encompassing, and captivating. For instance, a scaffolding tool to address the academic reading challenges facing first-year university students in Thailand. On the contrary, Sub-Saharan Africa witnessed amounting to a minimum of 30.1 million out-of-school children, representing more than half of the global total, whilst the number in North America and Western Europe stands at 2.2 million, only 7.3 percent of Sub-Saharan Africa.

Girls suffer the most significant obstacles from gender disparities. Specifically, they constitute 55 percent of out-of-school children and 52 percent of out-of-school adolescents. Moreover, it is noteworthy that almost 56 percent out-of-school girls are projected to never have the opportunity of formal education. The underlying reason behind this phenomenon stems from the prevailing perception held by a majority of individuals, in which boys are deemed to possess superiority than girls. When a family of this kind welcomes the birth of a female, her parents opt to withhold her access to education, compelling her to contribute to the family's income from childhood. In certain geographically isolated regions characterized by lax regulatory frameworks, it is observed that female infants are subjected to either drowning or commodification in exchange for monetary compensation.

Given the integration of AI in the educational systems of developed regions like the United States, it needs to consider the potential of AI to either uplift girls in rural areas from plight or exacerbate their hardships. The advent of societal innovation has led to the accelerated pace of AI technology, thereby widening the technological inequalities between developed and developing nations. It is highly probable that AI technology will eventually replace low-skilled labor, particularly individuals who originate from rural areas but are employed in cities. This is because AI has made significant strides in attaining complete automation. Consequently, industrial establishments are able to reduce the number of unskilled ones as a cost-saving measure, favoring the utilization of error-free machines over a less proficient labor force - those who come from rural areas. This phenomenon will give rise to a labor market inefficiency whereby displaced workers cannot secure alternative employment opportunities. In light of declining income, parents are inclined to prioritize the educational attainment of their male children, given the typical composition of families. The curtailed educational prospects for young females within these households will result in a loss of future academic pursuits.

Lower-income households in rural and remote regions have a diminished propensity to allocate financial resources towards higher education, exaggerating the inequality in education and personal growth. In an educational setting with relatively limited resources, children are vulnerable to weakened enthusiasm towards the learning process. Consequently, their cognitive abilities and perceptual acuity may lag behind those of urban peers, resulting in lower academic achievements. The digital gap in education, therefore, is progressively widening, thereby leading to an inevitable formation of a digital divide among nations. The constrained acquisition of education can serve as a limiting factor on the utilization of technology. The presence of AI in urban areas confers advantages to students, as it enhances the efficiency of their learning endeavors. Conversely, students in rural areas bereft of digital tools and internet connectivity, find themselves at a disadvantage in terms of learning opportunities and resources. Moreover, it impedes the capacity to acquire crucial information and hinder personal and professional growth.

With the rapid advancement of artificial intelligence, its expanding role in decision-making and analysis is providing remarkable efficiency and convenience. However, the question arises concerning those in disadvantaged regions: how will they be affected by this trend? The growth of AI as a replacement for conventional teaching has resulted in a reduction in the number of teachers and a transformation in instructional approaches, necessitating

raised qualifications. The trend presents a significant challenge in rural areas, where the availability of teaching resources is already limited, thereby impacting traditional educational approaches. On the other hand, there is a silver lining for teachers, with opportunity to explore alternative opportunity in rural areas, which could potentially lead to improvements in educational effectiveness and resource availability. In a potential breakthrough, a new development has emerged that has the potential to address the growing issue of educational inequality.

Newly discovered evidence has brought attention to the glaring discrepancy, underscoring the urgency to tackle the persistent problem of educational inequality in the age of artificial intelligence. Private markets may not adequately fulfill its role in allocating resources efficiently to schools in remote areas. It is imperative for the government to intervene with the provision of AI in such areas. Government shall augment its investment in AI and consider to nationalize or subsidize AI developer. Therefore, AI can efficiently distribute educational resources by employing intelligent analysis and matching techniques, such as conducting a comprehensive examination of educational requirements of students to disseminate top-notch educational resources to schools or individuals residing in remote regions. The astute allocation approach facilitates the mitigation of disparities in educational resources, thereby enabling a greater number of students to access and benefit from superior-quality education. Ensuring the accessibility and inclusivity of AI education tools is essential in order to effectively cater to diverse needs, including those of marginalized groups.

Educational authority bodies can deploy AI-driven systems in order to optimize administrative processes and foster customized educational interactions. This will help to deliver customized training and resources to educators, particularly in socioeconomically disadvantaged regions, is being pursued. Systematic teacher training is necessary and constitutes a prominent challenge in the realm of AI education, in order to possess a comprehensive understanding of integrating AI with the inherent attributes of educational products. This knowledge enables teachers in rural areas to proficiently facilitate the development of students' practical skills through hands-on experiential learning. The optimal allocation of resources for training should prioritize the development and enhancement of ethical principles and values. Teachers possess a sound understanding of utilizing AI and the capacity to discern AI theories and products that deviate from legal frameworks, regulations, standards, and norms. They exhibit proficiency in comprehending laws and regulations that are closely intertwined with AI and are capable of promptly addressing pertinent issues.

In the context of the fourth industrial revolution, young females in rural regions, who face educational disadvantages, tend to experience marginalization within society. The proliferation of AI technology has been observed to exacerbate educational disparities. This is primarily attributed to the financial constraints imposed on their families, which restrict their access to education. Additionally, the prevalence of a digital divide between rural and urban areas further hampers their educational prospects. These challenges are compounded by the persistence of outdated social norms, which hinder progress in this regard. The progress of social progress is unstoppable for such a small group of people, it require a contemplation of strategies to improve their status and foster a collective destiny for humanity.