

FEMINISM, GENDER THEORIES, ARTIFICIAL INTELLIGENCE, AND EDUCATIONAL DEVELOPMENT IN NIGERIA

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Abstract

This paper examined feminism, gender theories, artificial intelligence, and their impacts on Nigeria's educational development. Feminism is a socio-political movement which combines theory with political practice and seeks equality of both sexes. Although gender has been variously defined, contemporary conceptualisations of gender in different cultural spheres have been propelled by prevalent social change. Moreover, feminist theories, intersecting with artificial intelligence (AI) explore the extent to which societal norms and power structures shape gender roles, identities and inequalities. The paper further emphasised that educational development in Nigeria must take cognizance of technological and gender issues. It was indicated that feminist AI approach will ultimately foster inclusive educational development in Nigeria. Finally, recommendations were proffered, including the suggestion that government should involve persons from diverse groups to ensure that AI technology is developed to ameliorate gender inequality in Nigeria.

Keywords: Feminism, gender, theories, patriarchy, domination, artificial intelligence

Introduction

Feminism refers to a socio-political movement in quest of achieving equality between the sexes-male and female. The movement originated in 20th Century England when an activist, Mary Wollstonecraft solicited the rights of women (Scott & Marshall, 2005). A good number of theories have been generated (propounded) on feminism and gender to provide a critical foundation for comprehension of the complexity of the issue of gender and its relationship with social inequality, identity and power. Emanating from the feminist's movement's focus on challenging patriarchal norms and promoting gender equality, feminist theories offer good discourse or analysis of how gender is constructed, experienced and performed. Feminist scholars, such as Okeke (2019), Ringrose (2021), Oakley (in Haralambos, et al., (2013), Scott and Marshall (2005), to name a few, have developed or supported various perspectives on gender, ranging from radical and liberal feminism to Marxist and socialist, ecofeminism and cultural feminism, among a few others. It is exhilarating to note that each of these shed light on the manner in which gender is intertwined with race, class, sexuality, ability, and other terms related to oppression.

Accordingly, the interconnection between feminism, gender theories, and artificial intelligence (AI) represents a critical mark for interrogating educational development in Nigeria. As AI is increasingly shaping teaching and learning, it is imperative to examine how feminist and gender perspectives can ignite AI-driven educational initiatives. Nigeria with its complex socio-cultural background is confronted with enormous challenges in promoting gender equality and inclusive education. Feminist and gender theories provide very significant base for analysing these issues, as AI brings ample opportunities for innovative solutions to emerging challenges. This paper therefore explores the affinity of feminism, gender theories, and AI in Nigeria educational development.

Conceptual Analysis

Gender

According to Scott and Marshal (2005), gender means social and unequal categorisation of men and women into masculinity and femininity. In explaining gender, care should be taken not to confuse it with sex, which refers to the biological division into male and female. It should be very much

distinguished that gender draws attention to and accentuates the socially constructed aspects of uneven division between women and men. Accordingly, the concept gender has been expanded to encompass not only individual identity and personality, but to the cultural ideals and “stereotypes of masculinity and femininity... and to the sexual division of labor in organisations”(p.240).

Statistics Canada (2021), defines gender as a person’s private and social identity belonging to him or her as a man, woman or a non-binary person. A non-binary person is someone who is not fully a man or a woman. Broadly, gender comprises gender identity and gender expression. Gender identity is the gender which a person feels individually and internally. Also, gender expression refers to the manner in which people present their gender, despite their gender identity. This is achieved through body language, accessories or aesthetic preferences, manifested in use of clothes, types of hairstyles and makeup, which traditionally, are mainly associated with specific gender. Gender has been variously conceptualised in different cultures, regions and countries of the world and this is greatly influenced by prevalent social change. Gender identity is understood to refer to each person’s deeply felt internal and individual experience of gender, which may or may not correspond with the sex assigned at birth, including the personal sense of the body (which may involve, if freely chosen, modification of bodily appearance or function by medical, surgical or other means) and other expressions of gender, including dress, speech and mannerisms.

Riley (as cited in Okeke, 2019) defined gender as a social construct that establishes and differentiates statuses and roles between men and women particularly in the way they contribute to, participate in, and are rewarded by the economy and the prevailing social systems. This implies that gender is about men and women and transcends the biological dissimilarities between men and women to embrace socially determined characteristics resulting to societal perception of the individual and his or her allotted roles. Okeke (2019:15) furthermore confirmed that gender includes the “roles, behaviors and activities which a society perceives as appropriate for male and female with time and space”. This also relates with the conceptualisations of World Health Organisation(2024), and Baxter and Hoffnan(2019).

Feminism

The concept feminism reflects a position or is defined as a social movement or view which holds that women undergo discrimination as a result of their sex, that they have specific needs which have been neglected, unsatisfied and that the satisfaction of these needs would require a radical change (which some would refer to as a revolutionary change) in the social, economic and political order (Delmar, n.d).

Ringrose (2021), defined feminism as a political movement and social theory that is inspired by the experience of women. It provides avenues for critical evaluation of gender inequality and promotes women’s rights, interests and issues. Feminist theorists focus on understanding of the nature of inequality, gender politics, power relations and sexuality. Feminist political activists advocate for social, political and economic equality between the sexes. They campaign on issues such as education, reproductive rights, domestic violence, maternity leave, equal pay, sexual harassment, discrimination and sexual violence. Issues that are predominant in feminism are: discrimination, stereotyping, objectification (especially sexual objectification), oppression and patriarchy.

Similarly, Okeke (2019) stated that feminism is a social movement of concerned women and men referred to as feminists, in a bid to achieve gender equality. Education has become a major issue for the women’s rights movement in most parts of the world, especially in western countries. This is so because education is viewed as shaping the role women play in society (Gamble, as cited in Ringrose, 2021). It should be noted that feminism emerged in Nigeria as a consequence of the demands to improve women’s status and eliminate weakening factors that deprive women from exercising their full human rights.

These factors include patriarchy, male chauvinism, anarchy, exploitation, and marginalisation of women in the affairs of development.

Artificial Intelligence

As documented by Copeland (2024), artificial intelligence (AI) is the capability of a digital computer or a remotely-controlled robot to carry out tasks which are meant to be performed by intelligent human beings. This lingo is most of the time utilised in the project of developing systems that are endowed with human characteristics, including reasoning, discovering new meaning, generalising, or learn from previous experience, perception and using language. Similarly, AI refers to a technology which enables computers and machines simulate human learning, understanding, problem-solving, decision-making, creativity, and autonomy (Stryker& Kavlakoglu, 2024). Artificial intelligence applications or devices can see and identify objects. They can moreso understand, respond to human language as well as make detailed recommendations to all users, thereby serving as a seeming substitution for human intelligence.

Feminist Theories of Gender

The feminist and theories explore how societal norms and power structures shape gender roles, identities, and inequalities, and they aim to highlight and dismantle the patriarchal systems that uphold these disparities. The following key feminist approaches identified by Okeke (2019), Ringrose (2021), and Haralambos, et al (2013) contribute to our understanding of gender:

- i. **Liberal Feminism:** The liberal feminists target achieving societal change and equal opportunity by overhauling society's economic, political, and social systems for women (Okeke, 2019). Liberal feminism contends for gender equality within the existing political and legal systems, emphasising equal rights, opportunities, and representation. They focus on achieving reforms such as equal pay, access to education, and anti-discrimination laws. Their view of gender highlights social barriers that prevent women from accessing the same opportunities as men. In other words, the areas of change are specifically education, judiciary, and representation in government, and so forth.
- ii. **Radical Feminism:** According to Bryson (1999), radical feminists perceive women as an oppressed group that must struggle for their own emancipation. They believe that patriarchy is the root cause of gender inequality and must be dismantled. They emphasise the systemic oppression of women and criticise traditional gender roles, sexuality, and power dynamics. Radical feminists additionally focus on issues like reproductive rights, violence against women, the thingification of women's bodies, and emphasise that gender is a tool for maintaining male domination.
- iii. **Marxist and Socialist Feminism:** Haralambos et al (2013) disclosed that Marxist and socialist feminists do not heap the complaints about the exploitation of women by men wholly on men. Instead, they view or analyse gender inequality in relation to class and economic structures. They argue that capitalism and patriarchy work in unison to oppress women, particularly through unpaid domestic labour and exploitation in the workplace. These feminists focus on the intersection of gender and class, advocating for a radical restructuring of both economic systems and gender relations (OpenAI, 2024).
- iv. **Postmodern Feminism:** Postmodern feminists challenge fixed categories of gender and sexuality, viewing them as fluid and constructed. According to Haralambos (2013), postmodern feminism tends to reject the assumption that there is a lone theory that can explain the position of women in society. It encourages the acceptance of many different points of view as valid. Also, postmodern feminists sometimes do not agree with the notion that women can progress by taking on the characteristics and gaining the social positions traditionally reserved for men. Among other things,

postmodern feminists have suggested ways in which the interests of women can be pursued, such as use of language by the male folk (deconstruction of male language), especially.

- v. **Ecofeminism:** Ecological feminism, also referred to as ecofeminism emerged in the 1970s as a reaction to impacts of World War II on technological development (WIKIPEDIA, 2024). It links the oppression of women to the exploitation of the environment. Ecofeminists argue that both women and nature have been dominated by patriarchal systems, and they advocate for environmental sustainability and gender justice as interconnected goals. They criticize the ways in which gendered metaphors are utilised to justify ecological destruction and argue for a more holistic and egalitarian approach to the relationship between humans and nature.
- vi. **Cultural Feminism:** Cultural feminists emphasise the value of traditional feminine traits and roles, such as nurturing and caregiving, which have been devalued in patriarchal societies. Instead of striving for equality through assimilation into male-dominated institutions, cultural feminists argue that society should embrace and elevate these feminine qualities as equally important. They seek to celebrate women's unique contributions and advocate for a redefinition of power. In other words, this type of feminism focuses on the liberation of women through individual change, the recognition and creation of women-centred culture and rethinking of femininity and masculinity (Wolf, 2007).

Intersection of Feminism, Gender Theories, AI, and Educational Development in Nigeria

It is crystal-clear that the various feminist theories have identical stream of ideas that are interconnected. According to Shukla (2022), feminists examine the differences between men and women in society and try to see how these problems could be addressed and solved. Most importantly, feminists believe that education is an agent of secondary socialisation that aid to enforce patriarchy.

However, feminist education has opened the eyes of society to concepts of equality of opportunity in all spheres of life. Their strategies involve putting women's and girls' rights first, changing attitudes towards women and making use of relevant legislation. Feminists have challenged male hegemony over the curriculum and over knowledge itself through inclusive curriculum. Similarly, Omokhodion, et al (2015), disclosed that the universal opinion of direct relationship between education and development presents education as a frontal theme in the discourse of gender equality and equity. It is worthy of note that equality of educational opportunity for both boys and girls, men and women, is the lowest requirement to eradicate the disadvantages created by centuries of gender inequality. This view sees equal access to education for boys and girls as indispensable.

Accordingly, feminist and gender theories focus on addressing gender-based inequalities and promoting inclusive education. In Nigeria, feminist and gender theories inform educational initiatives aimed at challenging patriarchy, promoting girls' education and empowerment, and addressing gender-based violence and discrimination (National Human Rights Commission, 2019). Gainfully, AI has emerged with the aim of transforming education across the globe, including Nigeria. AI-driven initiatives include the following, among others: enhanced access to quality education, personalised learning experiences, and improved educational outcomes.

Nonetheless, the intersection between feminism, gender theories, and artificial intelligence in Nigerian education raises critical questions, such as: How can AI perpetuate or interrogate existing gender prejudices?

Can AI-driven education address gender-based disparities in accessing quality education in Nigeria?

How can feminist and gender-sensitive AI instructional design informs educational initiatives?

1. Challenging patriarchal system and general school environment, as well as gender-sensitive instructional processes that guarantee the successful equality is at the heart of development efforts.

According to UNESCO and United Nations International Children Education Fund (UNICEF, 2013), women or the girls in Nigeria have been backward compared to their male counterparts in According to UNESCO and United Nations International Children Education Fund (UNICEF, 2013), women or girls in Nigeria have been backward compared to their male counterparts. Accordingly, women constitute about 50% of Nigeria's population. This implies that exclusion of majority of women from education has produced adverse effects on the country's socio-educational development. This is so because women education has a multiplier effect owing to the fact that women more than men rear and socialise children. Having achieved education, mothers' impact more positively on the children as mothers who know the value of education would motivate their children to be educated. The reverse is the case when the children are raised by illiterate, superstitious and ignorant mothers.

Challenges

The following challenges have been identified by Osaro and Tagbo (2025), and Okeke (2016):

One of the major challenges of gender and AI is that the system is biased. Artificial intelligence (AI) systems are programmed on large datasets which perhaps contain stereotypes and biases connected to gender biased language, discrimination, decision-making process or lop-sided opportunities created for individuals of varying gender groups. The point should be noted that AI algorithms employed in hiring processes may unintentionally discriminate against female individuals from marginalised gender groups by tilting towards the male counterparts, thereby perpetuating gender stereotypes.

- i. Another challenge is lack of diversity in the development and deployment of AI technology. The AI technology industry is mainly male-controlled, and this has resulted to a lack of diversified perspectives and experiences in the design and implementation of AI system. This lack of diversity can lead to the development of AI technology that do not adequately address the needs and concerns of persons of all genders. The absence of diversity has contributed to the creation of gender stereotypes and bias in AI technology, thereby deepening inequalities as well as hampering progress towards gender equality.
- ii. Moreso, AI technology has the potential to reinforce and perpetuate harmful gender stereotypes. This is because AI system is often programmed on historical data, which reflect existing gender norms and stereotypes. This can result in AI technology that reinforce traditional gender roles, limit opportunities for individuals across all genders, and spread harmful norms of society. For instance, AI chatbots and virtual assistants are often designed with female voices. This reinforces the stereotype that women are more suitable for caregiving and administrative roles. Accordingly, AI algorithms applied in marketing and advertising may target individuals based on gender roles, and this perpetuates harmful beauty standards or reinforces gendered expectations.
- iii. Another troublesome issue is the challenge posed by the new technology. Access to technology, digital literacy, especially in local or rural communities, is hinged on supply of electricity (power). Unfortunately, most rural communities including greater parts of the cities in Nigeria lack electricity to power technological gadgets. Hence this is an enormous obstacle. Besides, there are also the issues of governance and policy. This is reflected in existence of gaps in gender-sensitive policy, absence of regulatory frameworks for AI, and gender-inclusive education policies. Even when government pays lip service to inclusivity, implementation becomes a pipe dream.

Conclusion

This overview of feminist theories and gender has indicated complexity in relation to mainly the ambiguous nature of the concepts and the multiplicity of feminist movements (groups). Nevertheless,

feminist activism has recorded more success in the advanced nations than in developing countries, most of which are still deeply rooted in traditional system of patriarchy.

Be that as it may, feminist theoretical ideas and the advent of artificial intelligence have impacted positively on educational development particularly, in Nigeria, gradually closing the education inequality gap between the sexes. It is expected that the prevalent male chauvinistic tendencies against women and girls will be enormously reduced to an infinitesimal level in the nearest future.

Recommendations

To overcome the identified challenges, the following recommendations are made:

- i. Respective organisations should give attention to diversity, equity and inclusion in the development of AI technology. This encompasses incorporating diverse representation in AI development teams, incorporating ethical consideration into AI design processes, and implementation mechanisms to detect and mitigate bias in AI algorithms.
- ii. There is also the need to promote gender equality in AI through the development of inclusive and wide range of datasets. Developers can assist to mitigate bias and promote inclusivity, through ensuring that AI systems are attuned to various representative datasets.
- iii. Government should involve stakeholders from diverse backgrounds, including women, persons from marginalised gender groups, and specialists in gender studies. This is necessary to ensure that AI technology is developed in such a way that will advance the gender equality and address the needs and concerns of individuals.
- iv. Government should, as a matter of urgency and policy, prioritise the power sector in every nook and crannies of Nigeria, and create a roadmap for integrating feminist theories in AI development and educational reforms. To this end, any policy made, especially on gender-AI intersection should be implemented. The case of lip-servicing of policy should be a thing of the past.

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