`Leveraging AI and Machine Learning to Address Social Challenges in Bangladesh

Background:

Bangladesh has made significant strides in social development, yet persistent challenges remain—particularly around violence against women, child marriage, and resistance to gender equality and women's empowerment. Recently, backlash has increased, undermining gender equity, young women's agency, and broader social progress. Rapid advancements in Artificial Intelligence (AI) and Machine Learning (ML) present an opportunity to address these complex issues effectively.

The Idea:

This initiative seeks to explore and answer critical questions relating to use of AI and ML to develop innovative solutions addressing pressing social challenges that the BRAC SELP is working on to address. SELP, in partnership with BRAC's Social Innovation Lab (SIL), proposes a fellowship program for young social researchers and AI/ML experts to test critical assumptions on use of AI in the Social Empowerment space, followed by an Human centered design based solution landscaping and product development phase. Selected fellows will receive support for further research on the AI based pilot programs that will be implemented by BRAC SELP, aiming to enhance social mobilization, government accountability in policy implementation, and counter-resistance to gender equality, particularly on social media.

The initiative will focus on the following critical Challenge statements:

1. How might we leverage AI-driven tools to identify and map harmful social norms and internalized biases impacting gender equality, creating tailored interventions that engage diverse community members—especially younger generations—in shifting toward gender-equitable behaviors?
2. How might we design AI-enhanced solutions for frontline workers as well as community members that both strengthen community mobilization efforts on critical social issues like gender-based violence, child marriage, and safe migration and enhance existing community engagement tools for SRHR education, ensuring these solutions are impactful, inclusive, and sustainable?
3. How might we engage local stakeholders in co-designing AI interventions, making them both relevant to community needs and accessible, while regularly assessing for unintended bias and negative impacts to foster trust and sustainability?
4. How might we use data analytics and AI to develop citizen-led monitoring and reporting systems that hold the government accountable for enforcing gender- and SRHR-related laws, allowing citizens to track policy effectiveness and compliance?

Community Engagement and Mobilization: Fellows will explore AI-driven strategies to strengthen community outreach on issues such as gender-based violence, child marriage, safe migration, gender equality, and SRHR education. They will begin by evaluating existing tools and interventions, then design AI-enhanced solutions to enhance community mobilization. Some possible intervention can be identifying the harmful social norms against gender equality and developing customized AI based solutions to counter those harmful social/gender norms.

Another solution can be mapping participant's mindset on gender-equality and suggesting possible interventions to upgrade their mindset starting from a young age.

Citizen-Led Government Accountability Mechanism: Fellows will investigate how data analytics and AI can facilitate monitoring and reporting systems to hold the government accountable for gender- and SRHR-related laws and policies. This may include solutions to track policy effectiveness and digital tools enabling citizens to monitor policy impact and compliance.

Localized SRHR Content Creation: Fellows will address misinformation and language barriers surrounding SRHR by developing localized, accurate content in Bangla for digital platforms using Generative AI based NLP tools. Their solutions will aim to promote gender equality and SRHR education in culturally sensitive and accessible ways.

Countering Resistance to Gender Equality and SRHR: Fellows will leverage AI tools to counter misinformation and opposition narratives, advancing gender equality, girls' agency, and SRHR advocacy. Special focus should be in engaging men and boys to be active ambassadors for gender equality. Some AI based solutions can focus on finding out the deep-rooted causes of violence from men and suggesting customized interventions in addressing them.

AI Ethics and Responsible Innovation: To address sensitive social issues responsibly, this initiative integrates ethical AI principles, focusing on privacy, fairness, transparency, and community involvement. Data privacy and security are paramount; personal information will be safeguarded through strict data protection practices, including anonymization and limited data collection. Bias mitigation is also essential: algorithms will be designed and continually audited to avoid reinforcing existing societal biases, promoting equitable outcomes across diverse communities.

Methodology and Timeline

- **Research and Design:** Fellows will test critical assumptions and review current and past tools and the social practices along with global best practices in each focus area and explore AI for social impact.
- **Collaborative Approach**: Each fellowship application should involve at least two experts—one in AI/ML and one with a social science background—to co-design solutions that are both technically and contextually sound while the AI expert will be considered as lead fellow.
- **Pitch Presentation:** Finalists will present their ideas in a national dissemination event in December 2024, where 3-4 winning ideas will be selected for pilot.
- **Co-Creation and Testing:** Shortlisted ideas will undergo refinement through consultations with BRAC, followed by pilot testing in the field.
- **Pilot and Evaluation:** The interventions should be realistic and be able to pilot in smaller communities at the beginning. Pilots of the selected ideas will run from approximately January to June 2025. Results will be documented and shared in a national event for potential scale-up.