

Document Title: White Paper for Round Table on CSR Funding for Social Change

Round Table on CSR Funding for Social Change

Organised jointly by IIITH-RCTS & HYSEA

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Introduction

A roundTable meeting on ‘**CSR funding for Social Change**’ was organised jointly by Hysea CSR group and RCTS, IIITH. Social scientists, Ngos, technologists, research groups, impact funding and CSR organizations deliberated on how emerging technologies can impact and enable rural education and healthcare. The outcome of the roundtable was that the stakeholders define the technology/innovation needs and to discover as well as Identify solution possibilities that can be deployed in the grassroots. This position paper summarises the deliberations of the roundtable.

Broadly the discussion was around 3 major subject areas: (a) Is emerging technologies like AI being used by NGOs? If not in use, what are the reasons; (b) Where are the specific Opportunities for technologies to amplify impact; (c) For corporates what and how projects are decided and the value of tech needs. This roundtable has tabled the broad challenge areas and explored possibilities to build new models to approach for CSR funding for social change.

A. Preventing hurdles and Challenges adopting emerging technologies for NGOs

NGOs are utilizing emerging technologies such as artificial intelligence (AI) & machine learning (ML); however, the rate and level of adoption is still slow even with external collaborations with industry and academia partners. The issues that are currently plaguing NGOs who are trying to utilize emerging technologies are numerous and can be summarized primarily under the following points:

1. Slow adoption of AI due to lack of capacity to understand and apply AI

There is a definite awareness and knowledge gap in understanding the role and the importance of emerging technologies for the benefit of the society. It is seen widely that the on-ground personel who use it, do not find value in it. This inadequacy is sometimes due to the lack of skilled manpower which is producing an inability to effectively communicate the problems trying to be solved with the technology experts.

2. Non-availability of manpower & dataset with the NGOs to train, predict and maintain tech models

Many social entities, though collect little generic data, are not aware of what kind of data collection can bring which insights. Therefore these datasets become very small to develop a training or predicting model. Most of the data is not collected and stored digitally thereby making the data inaccessible and reusable. Entities also face difficulty in maintaining the datasets

or even any built models given to them due to day-to-day operational limitations faced by the NGOs (be it monetary/skill training of on the ground workers).

3. NGOs have very limited access to technology tools to be able to adopt AI technology.

Lack of technology infrastructure equipment/facilities is a huge barrier for NGOs to adopt any AI or tech based solutions (for example: servers to host backend for Apps). Even if solutions are handed over to the NGOs after development, management and sustenance of them continue to be a challenge as it may require a dedicated tech personnel to manage it or provide backend support.

4. Focus needs to be shifted from trying to apply AI to social problems to identifying social problems that can be solved using AI technology.

There are also issues arising from the technology expert or solution designer (could be the NGO or the collaborator from industry/academia). Like the: (a) Affordability and scalability of the developed solutions; (b) Inadequate effort on the part of contextualizing the solution to the conditions on the ground where the solution is to be deployed; (c) End-user friendly for the targeted demographic; (d) Communicating the AI solutions to the end-user; (e) Lack of robust datasets for interested problems.

B. Specific Opportunities for technologies to amplify impact

There are countless opportunities where emerging technologies like AI can become the base to amplify impact. Few areas discussed are as follows.

1. Opportunities for education sector to benefit from AI-based solutions:

AI can be a catalyst in the education sector if it is able to reach the large number of beneficiaries which is at the bottom of the pyramid. Various emerging tech solutions like:

- Gamification of learning;
- Low-cost learning management system (LMS);
- Tools to reduce admin workload of teachers;
- Support personalized learning content at scale through AI driven algorithms;
- Create a platform for students, especially those from impoverished backgrounds, to gain access to resources, and figure out their opportunities and career paths;
- Promoting continuous learning and knowledge communication for teachers; and so on

can help in the amplification of the impact.

2. Opportunities for healthcare sector to benefit from AI-based solutions:

AI could be applied in healthcare for urgent primary diagnosis, primary remote consultation and treatment, personal health-screening, and early detection of non-transmissible diseases. Some possibilities are:-

- Performing predictive healthcare diagnostics remotely.
- Remote health check by way of equipment automation, reducing the operating manpower required on the field to technicians rather than doctors.
- Remote patient monitoring/interventions in a rural setting.
- Design technology modules for future COVID like scenarios.
- Screening of non-communicable diseases at large (tele screening and automated diagnosis).
- Training AI models using the existing data corpus of robotic surgeries, both as a tool for training new doctors and for use in diagnostics, etc.

3. Opportunities for agriculture sector to benefit from AI-based solutions:

Innovations in agriculture could be a great enabler in reducing serious challenges faced by the farmers. Deep-tech methods and information technologies can build smart alternatives solutions like:

- Develop AI systems to provide agricultural guidance.
- Mechanizations for natural farming across various stages of the farming process.
- Using advanced machinery, smart sensors and devices to increase the quality and quantity of fresh produce.
- Increasing crop growth efficiency through motion sensors and GPS technology, etc.

4. Focus should be on building low-cost solutions that can be scaled at large to maximize impact.

NGOs need low-cost solutions, as they deal with the large population in our country. To scale any such solution few factors need to be taken into consideration while designing them. Starting with a solution and then trying to fit that into a problem is the most ineffective approach. Hence, firstly, there is a need to understand the depth of the problem through a need analysis to be able to categorize the needs of the population of interest. Then, cataloging the ways in which technology is currently being utilized by NGOs. Next, addressing the unmet needs (what is required to solve the problem?) to define the problem with long-term impact and applicability in mind. Utilize existing data and knowledge models to design AI systems and see if AI is the best low-cost, sustainable and affordable to reach the masses.

C. Criterias for corporates to review and decide on CSR initiatives or programs that are worth supporting

Many times making a good proposal becomes a very lengthy and time consuming activity. This happens due to lack of clarity and understanding between the various stakeholders in the project. Sometimes the funding organization is looking for more specificity and rooted impact while the proposal might sound quite generic and vague.

1. Elements of a good CSR proposal should include end-to-end solutions, clear strategy and sustainable impact.

- 1) Must contain end-to-end solutions, which are detailed and contextualized.
- 2) Must contain strategy analysis of implementation of the solutions.
- 3) Must contain impact translation analysis for the work/funding given.
- 4) Must contain sustenance analysis of the solutions developed in the long run.
- 5) Must list the involvement and ownership of the different parties involved in the cause.
- 6) Shift from short term to long term solutions in the community.
- 7) Provide returns on investment (ROI) analysis and business plans.
- 8) Integrate solutions across the organization.

2. Corporate CSR's expect NGO's to have skin in the game to explore in depth the unmet needs of the community.

Funders find it unconvincing to see the ground impact their contribution is bringing in society. This might develop a perception of doubt and uncertainty about their contributions. This signifies that if they are encouraged to have a deeper exploration of the problem space and get involved in executing the solutions on ground, it will become more persuasive for them to continue their support. A possible way could be to have a website/platform for unmet needs with links to resources: CSRs, Govt., and NGOs. Through this tracking the lifetime of the solutions/resources (financial, technological, manpower, etc.) will become easy and also there will be transparency maintained in the process.

3. CSR leaders can support for more than funding through access to human and infrastructure resources

The issues with existing proposals is that they only ask for monetary support but there are very few who ask for the contribution of technological expertise and resources. Conversations should not stop only till funds but also should continue discussions on how the strengths of the corporations (be it technology or research or network) could be used to leverage to further the growth and impact of the social organisations. This will also help amplify the impact of solutions designed by collaborating with other players on the field.

Summary and Next Steps

NGOs have joined hands to create a database on their unmet needs that can be addressed in collaboration with Raj Reddy Center for Technology and Society. Few areas where the NGOs are utilizing emerging technologies either on their own or in collaboration with technology experts are use of natural language processing (NLP) for automated non-smart phone support for education, where students can ask questions in local Indian languages and get contextually relevant answers in their own language. Analysis learning effectiveness of intervention programs conducted to improve overall development of students, by use of existing datasets. Gamification of educational content for better engaging the students especially those with attention disorders.

The center has also collaborated with one school-complex cluster to pilot technology interventions and explore possible tech solutions for teacher tools, designing holistics progress reports, formative assessments and such. Convergence of Social Sciences, domain project teams, development specialists, product designers and engineering will ensure the right solutions are built to solve relevant problems. Every endeavor will be made to create standards, reusable frameworks, and platforms to enable a much wider impact in the years to come.

Acknowledgments:-

Chaired by: Manisha Saboo, Treasurer, Member of Hysea Managing Committee.

Facilitated by: Dr. Rohit kandakatla, Director, KG Reddy College of Engineering.

NGOs invited were: K. Thiagarajan, COO, Agastya International Foundation; Sushila Varma, Head of Startegy, Care India; Mayur Patnala, Founder, Nirmaan Organisation; Vinoda Kailas, Director, Navam Foundation; Vignesh Krishnan, City Director, Teach For India; Brig Ganesham, President, Palle Srujana; Dr. Chinnababu Sunakavalli, CEO, Grace Cancer Foundation; Dr. Pramod G, CEO, Fernandez Foundation; Subbu Parameswaran, Co-founder, Learning Curve Foundation; Akhila Nookala, Lead Program Designer, Inqui-Lab Foundation; Dr. Satish Ghanta, CEO, Choice Foundation; Bhubesh Kumar, Director, RICH

CSR representatives invited were: Mohit Dingra, Hyderabad Head, Bank of America; Udaya Dintyala, Executive Director, AT&T; Sridhar Chunduri, Head of Technology, Wells Fargo; Subramanyam Chinta, Global Delivery Partner and Director Life Science, Cognizant; Bharani Kumar Aroll, President, Hysea; Shashi Reddy, Vice President (engineering) Qualcomm; and Manisha Saboo, Asso. Vice President, Infosys.

About Raj Reddy Center: This center is an initiative of IIIT Hyderabad to enable research and

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emerging technology-led solutions for grassroots education and public health, with specific emphasis on rural. The problem faced by the bottom of the societal pyramid is huge and needs solutions that can be scalable to billions of underprivileged. Several NGOs have been doing a phenomenal job on ground but NGOs don't have access to research technology. This limits the scale amplification due to dependency on volunteers alone to scale. With access to the tech research institutions, the center will help leverage the good quality of emerging technologies (like AI and such) to amplify the impact of these organizations' efforts. The center has pursued two broad directions for high societal impact: Innovations in rural education, and Innovation in rural Healthcare for the Bottom of the pyramid.