**Harnessing AI and Human Collaboration to Build Whole-System Frameworks for Crowdsourced Problem Solving**

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A grand challenge in finding solutions to complex societal problems is creating networks where stakeholder organizations have a whole system lens and can work together effectively to tackle societal issues. Our work seeks to explore how AI can be a tool to help stakeholder organizations develop a system-level lens, so they can be aware of how their efforts are part of a greater whole. We believe that this starting place will help organizations build trust, reduce territoriality, and move toward more seamless collaboration with each other. We aim to develop a whole-system solution framework, where AI can accelerate the creation and improve the quality of initial drafts, allowing us to efficiently identify key stakeholders, their roles, and their contributions toward moving the community system closer to a shared future vision. This approach provides a foundation for long-term collaboration, while still emphasizing the importance of human-driven processes and relationships.

One of the main barriers we address is the lack of trust between organizations, often caused by competition for resources and limited awareness of each other's contributions. We are examining how a combination of technology and human-centered experiences—including shared awareness, personal connections, and community activities—can foster the kind of relationships that lead to collective action.

Successful real-world examples, such as Chef José Andrés' World Central Kitchen, demonstrate how collaboration during crises can produce extraordinary outcomes. Similarly, place-based frameworks like the Harlem Children's Zone offer insight into how diverse stakeholders can collaborate effectively across sectors, even in non-crisis settings. These examples highlight how stakeholder organizations, when interconnected through a blend of technological tools and shared human experiences, can initiate and sustain system-wide transformations.

Our approach emphasizes the importance of data transparency and the availability of centralized resources that all organizations can trust and access equally. By employing AI, we can rapidly draft and normalize a visualization of the system's stakeholders, their roles, and the solutions they contribute, providing clarity around how their efforts align with overcoming obstacles and moving toward shared goals. This structured visualization offers a more coherent understanding of the problem space, allowing organizations to recognize how their contributions interconnect with others and fostering a collaborative mindset.

A framework has been developed that provides a structured way to visualize the problem space as a system, mapping the community's future goals, obstacles, potential solutions, and available resources—represented by the stakeholder organizations. This structured framework also helps stakeholders see how they can contribute more meaningfully within a cooperative system and understand their relationship with others in the solution space.

As part of this, ethical considerations and equitable participation are critical. Ensuring fair representation, minimizing bias, and protecting privacy are integral to creating a collaborative environment that includes a diverse range of stakeholders. These principles guide both the technology-driven elements and the human-centered collaboration within the framework.

Incorporating aspects of crowdsourcing, this model highlights how collective action across organizations can be modeled as a distributed, action-based problem-solving computational network. Stakeholders contribute to this network in much the same way as participants in traditional crowdsourcing efforts, though focused on community-driven actions rather than purely data collection or data processing.

We also explore how incentive structures, alongside opportunities for shared experiences, can motivate stakeholders to work together toward shared goals, even outside of crisis situations. This approach ensures that collaboration is scalable and sustainable, driven by both technological innovations and human-centered strategies.

We believe that even small, incremental progress in collaboration effectiveness can create positive momentum, deepening engagement and trust. As organizations begin to see the benefits of working together, the system becomes more cohesive, leading to more sustainable and impactful outcomes.

Ultimately, our work aims to explore how whole-system frameworks can be designed and implemented in non-crisis environments, enabling scalable, long-term collaboration among stakeholder organizations. We hope to contribute to systems that others can build upon, and we welcome input from the workshop on refining these approaches to ensure that global participation in collaborative problem-solving is inclusive, equitable, and representative of the communities most in need.