Potential Project Ideas

The following is a list of example projects that align with the goals of the Narrative to Numbers (N2N) Hackathon. Feel free to refer to these examples for inspiration, or even take one of them on yourself!

In-the-Moment Needs Assessment

A mobile application (via WhatsApp plugin, SMS-based system, or standalone app) that sends structured survey-style questions during crises (quantitative: e.g., “Do you have power? yes/no”), while also enabling open-text or voice responses (qualitative). The system uses natural language processing (NLP) and speech-to-text to classify needs (e.g., food, shelter, electricity) and urgency scoring algorithms to prioritize cases. Structured outputs are automatically routed to community service providers and emergency responders.

Mixed Methods: Qual = voice/text narratives; Quant = structured survey variables, urgency scores, service response time Mixing= transformation of qual data into structured outputs

Crowdsourced Emergency Image-Based Response

A geospatial crowdsourcing platform that allows residents to upload images or short videos of crisis conditions (qualitative, contextual data). Images are automatically geotagged and classified (quantitative: damage severity scores, object detection for flooding, fire, collapsed infrastructure). Emergency responders view both the raw submissions (qual) and aggregated heatmaps/damage indices (quant) to allocate resources.

Mixed Methods: Qual = firsthand imagery/narratives; Quant = computed severity scores, density maps, and counts of reports per region. Mixing= transformation of images by geocoding of and classifying

Vaccine Informational Intervention & Insight Collection

A system that sends push notifications or SMS messages with links to vaccine information and the ability to text with a vaccine information chatbot. Responses to free-text/voice fields (“What concerns do you still have about vaccination?”) are thematically coded and processed via NLP on the backend to distill insights.

Mixed Methods: Qual = text narratives, thematic coding; Quant = computational methods, NLP; Mixing = transformation of qual insights using qual and quant methods

Post-Crisis Recovery Tracking

Households affected by disasters receive periodic structured check-ins (“Do you currently have electricity? water? housing?”) paired with open-ended narratives (“What has been the hardest part of recovery for your household?”). This enables longitudinal monitoring of both measurable recovery metrics and contextual lived experiences.

Mixed Methods: Qual = open ended narratives; Quant = structured check-ins; Mixing= using the results of qual to help interpret the quant results

Air Quality & Community Perception Study

Residents in polluted areas wear low-cost sensors that collect continuous air quality data while responding to prompts like “How are you feeling today?” via free-text or voice. This enables linking objective exposure with subjective health perceptions.

Mixed Methods: Qual =responses to prompts; Quant = air quality; Mixing= qual and quant data can be merged through joint display

Social Media Based Heatwave Risk & Service Gaps Mapping

A system that extracts data from Nextdoor, a neighborhood-verified, hyperlocal social media platform, to monitor posts and comments during heatwaves to identify micro-area needs (power outages, lack of AC, water access) and direct resources.

Mixed Methods: Qual =NextDoor post and comments; Quant = location of neighborhoods; Mixing= transforming posts into the different micro-area needs