

# Digital health Strategies During COVID-19

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## Emergency Reporting System for Animals

This paper aims to connect the missing links with a web-based solution where-in a person, namely the Reporter can register their complaint in about 30-40 words describing the condition of the animal in concern. On finally registering with the complaint via our app, each complaint will undergo categorization with the help of Natural Language Processing (NLP). Categorization happens based on the type of animal, the severity of the injury, degree of importance, and a few more important fields to consider after which, all nearby Non-governmental organizations, vets, animal hospitals, shelters and other such Agencies will be alerted of this complaint. The Smart Emergency and Reporting System for Animals is a full-stack web application that utilises Natural Language Processing (NLP) in its system. The present system to handle reports of incidents related to animals is completely based on a pen and paper basis for record-keeping and there is no central medium to direct reports of incidents to the correct agency. Reporters tend to contact the agency they find most suitable for attending to the animal and many of the times they reach out to agencies that do not deal with the type of incident which leads to the report being neglected and the animal(s) suffering. This application attempts to bridge this gap between the reporters and agencies (Non-governmental organizations) by digitizing the process and using Natural Language Processing (NLP) as an aid to automatically classify reports filed by users. The application consists of 4 layers, namely - the frontend, the authentication, backend -middleware, and the Natural Language Processing (NLP) processing unit. The front end will have 3 subdivisions - one for the reporters, one for the agencies and finally one for the admin. The reporters can choose to register or login temporarily with our system using an OTP and captcha verification and file reports of animals in need of some services. This report is then forwarded to nearby agencies which deal with that particular animal and incident type. The agencies which have registered with our system can accept/reject the request and then carry out the necessary steps and update the status of the report. The processing of requests, responses and core logic is carried out by the backend service which interacts directly with the database using an ODM. The backend is designed securely and role-based access is given to secure endpoints. The entire authentication in this process is carried out by firebase which is used as the authentication provider.

### Biography

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