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TECHNOLOGIES FOR REAL TIME VISION OFCOVID 19 TRACKING

PROF. MOHANBABU C[1]Shabeena R[2]

[1]PROFESSOR, DEPARTMENT OF ELECTRONICS AND COMMUNICATION, SJC INSTITUTE OF TECHNOLOGY, CHICKBALLAPUR, KARNATAKA, INDIA.

[2]STUDENTS, DEPARTMENT OF ELECTRONICS AND COMMUNICATION, SJC INSTITUTE OF TECHNOLOGY, CHICKBALLAPUR, KARNATAKA INDIA.

Abstract— The rapid pace of the Corona Virus Disease 2019 COVID-19 epidemic caused by Severe Acute Respiratory Syndrome SARS-CoV-2 poses challenges to the robust collection of population-level data to address this global health crisis. COVID Symptom Tracker, mobile application formerly known as COVID This application, which provides data on risk factors, prognostic symptoms, medical results and geographic hotspots, was launched on 24 March 2020 in the United Kingdom and on 29 March 2020 in the United States and has received more than 2.8 million users as of May 2. 2020. Our initiative to implement rapidly scalable epidemiological data collection and analysis provides the basis for the concept of reinventing existing approaches, which is crucial for a data-driven response to public health challenges.

I. INTRODUCTION

The experimentally increasing number of severe acute respiratory syndrome coronavirus 2 is SARS-CoV-2 infections is an “urgent need to expand public health efforts to elucidate the epidemiology of the novel virus and characterize its potential impact” [1] . Understanding risk factors for the epidemic and predictors of subsequent outcomes are important to gain control of the coronavirus disease 2019 (COVID-19) pandemic [2]. Hampering efforts to disseminate accurate information in a timely manner that impacts public health planning and clinical management. Therefore, there is a pressing need for a scalable real-time data capture platform for rapid and prospective data collection in high quality across the spectrum of subclinical and acute presentations and identification.. Addressing this priority will allow more accurate estimates of disease incidence, inform risk reduction strategies, facilitate the allocation of scarce testing resources, and promote appropriate isolation and treatment of those affected.

A growing body of literature suggests that the incidence and outcomes of COVID-19 vary by age, gender, race, ethnicity, and baseline health status, with inconsistent evidence that commonly used medications such as angiotensin-converting enzyme inhibitors, thiazolidinediones, and ibuprofen are effective. - May alter natural disease course [3]. Furthermore, symptoms of COVID-19 vary widely, with fever and dry cough reported to be the most common, although many studies have determined that asymptomatic carriage determines community transmission . In addition, the full spectrum of clinical presentation, which is still characterized, may differ markedly across patient subgroups.

Previously unappreciated gastrointestinal symptoms (eg, nausea, anorexia, and diarrhea). Loss of taste and/or smell, and common aging syndromes (eg, falls and fainting). The pandemic has significantly outpaced our collective efforts to fully characterize who is most at risk or may suffer the most severe consequences of infection. Mobile phone applications and web-based tools [4]enable self-directed collection of population-level data, the results of which can be quickly reused to communicate emergency health information to participants [5]. Both technologies are particularly advantageous when multiple individuals are advised to maintain physical distance from others . Such digital tools have already been used in more controlled research settings, and these studies benefit from more time for field testing, questioning, and recruitment. Although several digital collection tools for Covid-19 have been developed and launched in the US and abroad (see http://mhealth- hub.org/mhealth-solutions-against-covid-19 for a regularly updated list of resources from European countries. Union and World Health Organization), disease control And most apps, including some in collaboration with government health agencies such as prevention centers, are largely structured to provide a single assessment of symptoms followed by personalized recommendations for further assessment. Integration with approaches that use remote data capture (eg wearable technology or symptom checks such as real-time reporting thermometers) is also being considered. Although these approaches provide important public health insights, they are often not designed for the type of scalable longitudinal data capture that epidemiologists need to conduct comprehensive, well-run investigations.

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To address this challenge, we established the Consortium on the Coronavirus Epidemic (COPE), an international collaboration of lead investigators from several large clinical and epidemiologic collaborative studies.

II. LITERATURE REVIEW

Recently, it has been of interest to many researchers. For example, the development of Voxiva has recently been of interest to many researchers. For example, Voxiva has developed Alerta, a phone and internet platform for communications and disease monitoring. Rural health workers can report new cases of disease systematically and in real time by connecting to the Voxiva system and pressing buttons on their phones. Project ALERT was first piloted by a clinic of the Peruvian Ministry of Health. It was subsequently implemented in the Peruvian Navy in October 2002. ALERTA has resulted in early response to outbreak recognition, timely case management and increased revisions of clinical procedures within reporting units. They concluded that Alerta represents a fully functional alternative for cost-effective, real-time disease monitoring [6].For example, in Africa, Voxiva has created a national HIV/AIDS information system for eight countries that captures current data for national and global reporting requirements to reduce the prevalence of viral resistance. In India, within a month, Voxiva established a surveillance system for Japanese encephalitis [7]. The Cell Life project uses mobile phones to monitor HIV/AIDS control in patients undergoing antiretroviral therapy in South Africa [8]. Most of the platforms used by the Cell Life project include the Global System for Mobile Communications (GSM), the Wireless Internet Gateway (WIG), and the Geographic Information System (GIS) database. Research reports show that public health informatics and disaster response systems can be built using Java-enabled cordless phones [9]. The research confirmed that Java-enabled cordless phone technology is inherently deployable and portable. Minimal guidance for new devices is required as everyone gets into the phone keypad and presses the buttons. In addition, the implementation of the Gota Program established by WHO with partners in the Global Outbreak Alert and Response Network significantly increased Ebola contact tracing performance in DRC in 2019.

III. THE PROPOSED SYSTEM

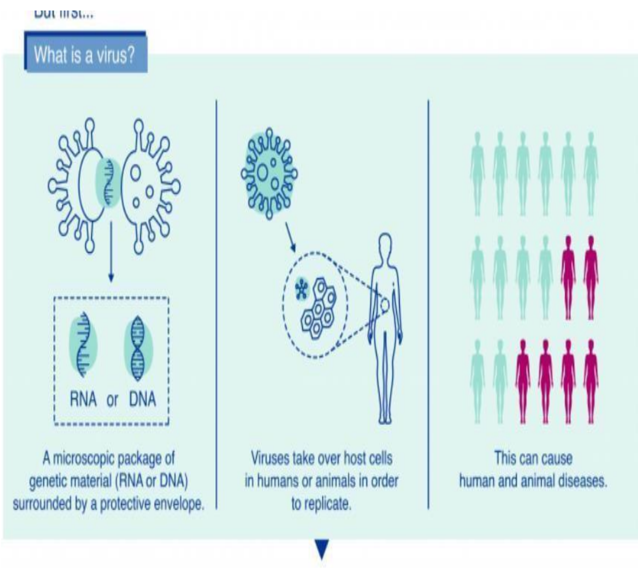

FIGURE 1. Proposed system overview.

Method 1. System Design The proposed system can assist in the outbreak response and symptom control aspects of contact surveillance including case investigation, contact inventory, tracing, automated analysis, and performance monitoring. This proposed system will manage the dynamic relationships between states and contacts because contacts can have multiple contacts. This proposed system provides functionality for the workflow of field staff who perform contact tracing as well as supervisors to monitor the implementation of contact tracing. This system combines the telephone and the Internet to create a real-time communications monitoring system as a complement to the manual communications monitoring of the COVID-19 pandemic. Based on a system from a selected telecom company based in the country, it will be an interactive voice answering application for mobile phones in English and French. This proposed system will consist of five elements in the architectural design. The five architectures, a central database and web server, provide remote access to the database from any computer with Internet access, computer- assisted interviews, voice mail, and short message service (SMS)-based communications to and from. Mobile server (Fig. 1). Figure 1: Scheme of the

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system architecture How the system will work You can register in the system using a mobile phone and follow the instructions in a simple required menu and enter your name, age, mobile phone number and postal code. A confirmation text message will be sent to you stating that you have successfully registered with the system. When you have symptoms, you log into your account in the system and submit your report, either by filling out a brief questionnaire or an audio reminder. those who are appointed. Designated health officials can monitor incoming reports through the web interface. Individual accident reports came in real time with complete condition details. Once designated health officials analyze data with the COVID-19 system, it will notify you of necessary measures such as 14-day isolation, mask surgery, distancing, and testing via email and SMS. Designated health officials can communicate with area telehealth officials to promote awareness of COVID-19 guidelines such as washing hands, shaking hands, avoiding social distancing, etc., and they will ask you. The child's parent, guardian, or caregiver will be asked to consent if a diagnosis is made. Completed information allows designated health officials to contact nearby contacts and advise them on what to do. Health officials refused to release the name of the infected person. Also, the database will only be available to licensed health officials, and the system will operate 24 hours a day, seven days a week. 5.

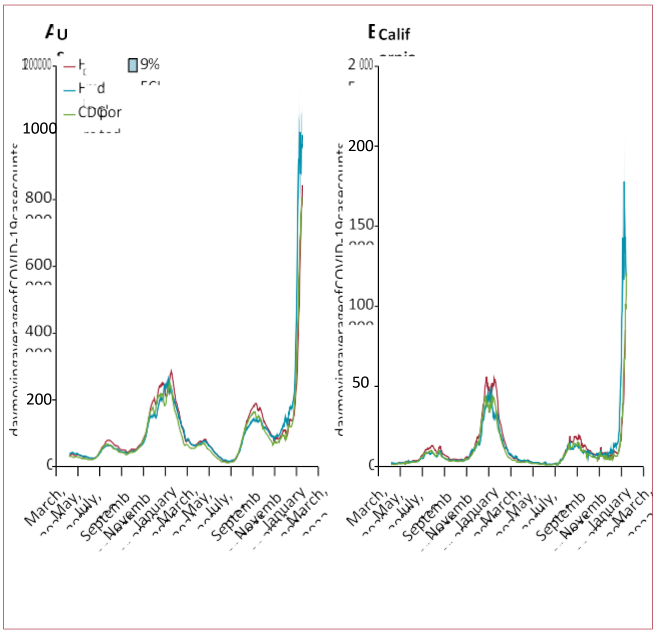

Figure 2: Predicting 7-day moving averages of COVID-19 case counts 12 days in the future

IV. ADVANTAGES

- Although such a proposed communication monitoring system has been successfully operated manually, the use of this system will facilitate the implementation of communication monitoring on a large scale.
- The proposed system would provide an opportunity to strengthen COVID-19 communication monitoring capabilities. An example is the significant increase in Ebola virus contact surveillance performance facilitated by the implementation of GoData in the Democratic Republic of Congo in 2019 [10].
- This system is used as; Includes the ability to provide improved data quality, analysis and real-time situational awareness, the ability to track more contacts in a shorter period of time, and the ability to perform coordination and management of contact tracking teams.
- Furthermore, this system will provide information(s) for monitoring and evaluation of the contact tracing.
- This system can also be used by government agencies in the field to set up post-COVID health facilities, which provide psychological helplines and provision of palliative medications to remote areas as well as collect feedback from people.

V. APPLICATIONS

- It reduces the stress on the military units during times of disaster.
- This project can help a community which has suffered a disaster to recover easily within a short span of time.

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Remote areas can also be explored.

- Certain places are only for gathering information and monitoring; thus, this surveillance bot can surely be used.
- It can be used to monitor traffic rules, persons wearing helmets or not, and car seat-belts.
- By combining camera features with the robot, we can easily monitor indoor as well as outdoor locations dur

is systematically boycotted if they do not have access to the system. There are ethical issues related to privacy, security, transparency, accountability, and adequate regulatory oversight [13]. Marginalized, low-income groups, especially low-income groups, are likely to be boycotted. Then, the cost of using the system from hardware to software, to training costs, to ongoing technical support are included. In addition, there is limited evidence to assess the effectiveness of digital tools in the COVID-19 response, despite the implementation of the proposed framework in many countries and regions. In this move, they should not refer to contact tracing tools as "stand-alone solutions", but rather as additional tools to manual contact tracing tools. 6. Conclusion The proposed system, once implemented, will enable contact tracing of COVID-19 assets. It was discovered that COVID-19 can be developed for contact tracing with real-time data collection and reporting using mobile phones as a possibility. Proposal AJ You will have to load the latest laptop or desktop to build a sophisticated public health care system. True telco partner kannai mobile phone da use hoi covid-19 contact tracing system ready daytime and at night.

VI. DECLARATION OF INTERESTS

LMW works for The Rockefeller Foundation, which funded part of this study. VK is the principal and an employee of CareEvolution. ER is the principal science officer and an employee of CareEvolution and Scripps Research. JAP is an adviser for Angiotensin Therapeutics, Precision Health, Cardiosense, and Sense AI. GQ and JMR are supported in part under a grant from The Rockefeller Foundation and the National Center for Advancing Translational Sciences, the US National Institutes of Health. All other authors declare no competing interests. Data sharing All interested investigators will be allowed access to the deidentified analysis dataset if they register with Scripps Research's institutional review board and pledge not to reidentify individuals or share the data with a third party. All data inquiries should be addressed to the corresponding author. The study protocol, informed consent form, and programming code are also available upon request to the corresponding author. Data will be available beginning with publication. reflect the positions or policies of The Rockefeller Foundation

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