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Press Release of Sumant Parimal, Global IT Analyst and distinguished panelist on Forbes Global 'A.I.' (Artificial Intelligence) panel

"Aarogya Setu App. is a reactive Technology and lags behind Corona Virus spread speed, if we have to defeat Corona Virus, then we have to use proactive Technology which runs faster than virus spread"- Sumant Parimal

Details of Press Release-

"Aarogya Setu App." which has been developed by 'IT' department of Govt. of India for tracking and tracing of Corona Infects, and which has been mandated by Govt. for installing on Citizens mobile phones, in real senses it is a technology which lags behind speed of the virus infection spread.

Due to this reactive technology, an infected person who tested positive, updates his status in this App. as positive only after 5-10 days of infection contraction. During this 5-10 days of cycle time, that Corona suspect quite possibly spreads virus to many new persons and creates new chains of infection.

It is possible that, before a suspect gets tested as positive and his status in "Aarogya Setu App." gets updated as positive, he might have infected 50 to 100+ people. However, due to this App. it is quite possible to track those possible infected people in reactive mode, because infected person who got tested positive have mobile Bluetooth device contact details in forms of anonymous ids of those suspects who were in close distance with that infected person, provided all of them have mobile with "Aarogya Setu App." installed and working. This is how "Aarogya Setu App." comes into action after spread of infection and traces impacted people in reactive mode. That's why we are calling it a reactive technology which follows corona virus footprint and lags in tracking speed compared to virus spread speed.

However this doesn't mean that we are saying that this is not an affective App, this App able to track and trace infections to an extent, however due to higher cycle time of effective track and trace sequences post positive report of infected person , as explained above, this App may not be effective in breaking 100% chain of Corona Virus infection due to its time lag reactive Technology.

In addition, not all people of India having smart phones with Bluetooth device and internet connection and hence don't have capability to install this App. As per one estimate, in India, around only 500 millions people have Internet connected smart phones, in which this App can be installed. Thus, a large section of population of India don't have capacity to install and use this App.

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Apart from this, those migrant workers and laborer who have smart phones with internet packages, may not be in position to recharge those mobile internet connections due to loss of work / jobs, and this becomes a weak link in view of this App being working on whole population of this country.

In addition, there are many generations of Bluetooth protocols which works on different kinds of mobile devices, which may not be discoverable in many cases by near by mobile devices and due to this technical problem also very often it may not be possible for one App user mobile phone to connect to the other App user mobile phone for entering its unique id.

That is why we are seeing this App as a technology solution which doesn't covers entire population of India, due to which this App is not in position to track and trace entire chain of Corona Virus infection and its footprints over entire Indian population.

In the matter of Data Privacy, we are in position to assess and assure only till 50% level, as there are two types of tracking provisions in Aarogya Setu App. First provision is through Bluetooth, through which all App user mobile devices coming into close range exchanges, contact records automatically and confidentially by "Aarogya Setu App.", and sends these users contact data to Govt. server only when a person gets tested positive in Corona Virus test. Otherwise Bluetooth contact log data, in which there are no personal sensitive information gets captured, remains secretly in user's mobile device only, which gets erased after few mandated days automatically. This is how Bluetooth based first type of track and trace process is safe as far as users data privacy is concerned. That's why this Bluetooth based technique of track and trace has been used by Many Countries Govts. in their Corona virus patients tracking Apps.

Though this first type of Bluetooth based track and trace technique is safe for data privacy, but it works in reactive mode and thus we are calling it a App which follows Corona Virus spread with a lower speed compared to speed of spread of virus.

Second type of track and trace function of this App is built by using GPS, in which user's location data sent to server of Govt. of India periodically. Based on which various departments of Govt. of India able to tracks travel footprints of the users in order to assess risk of potential infections, and to send suitable alert to users at suitable time. There is no doubt that keeping in mind public health, this becomes an important technique, however tracking users movements and sharing their locational data to various Govt. departments and agencies, becomes a matter of privacy concern. That's the reason this GPS based second type of track and trace technique used by Aarogya Setu App can't be considered as 100% safe from privacy perspective as these all locational data are used in various Govt. departments and how it is used is not known to the respective users.

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However, Govt. of India has assured public several times that App users data are safe and there is no breach of privacy on personal data captured in Aarogya Setu App, still we would like to appeal Govt. of India to upload App users data usages audit trail record in public Blockchain so that any user shall be in position to track usages of its Apps personal data utilization and places of its usages with complete transparency.

Suggestion for Way forward Solutions: It is a know fact that Corona Virus came to India as a tsunami and we didn't get enough time to prepare ourselves and the technology which Singapore and South Korea used earlier , India too adopted similar kind of Technology in form of Aarogya Setu App, in order to build a quick tool for fighting against virus. We can term Aarogya Setu App as first generation Technology, but if we have to win over Corona Virus, then we have to use a Technology which works ahead of virus spread. Presently used Aarogya Setu App is based on a Technology which runs behind Corona Virus spread and follows Corona virus in reactive mode. So through this Aarogya Setu App Technology its appears tough to win over Corona Virus spread.

Although, we believe that complete eradication of Covid-19 is possible only through a relevant vaccine, however till the time vaccine has not been discovered, we should use advanced and intelligent technologies to control spread of Corona Virus.

An **Artificial Intelligence (AI)** based technology solution can only run faster than speed of Corona Virus spread and can become an important tool for getting a win over present spread momentum of Corona Virus in India. India should build its own Applied 'AI' based **"Epidemic Intelligence and Management System" (EIMS)**. By using proactive Technologies like **EIMS**, India can march ahead of Corona Virus and can detect and stop spread of virus before it spreads further. EIMS can become a strategic technology for India which shall be instrumental in proactively controlling not only the present virus spread, but also becomes key tool in stopping proactively any future epidemic.

End of Press Release

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