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(54) **METHODS AND SYSTEMS OF  
PRIORITIZING TREATMENTS,  
VACCINATION, TESTING AND/OR  
ACTIVITIES WHILE PROTECTING THE  
PRIVACY OF INDIVIDUALS**

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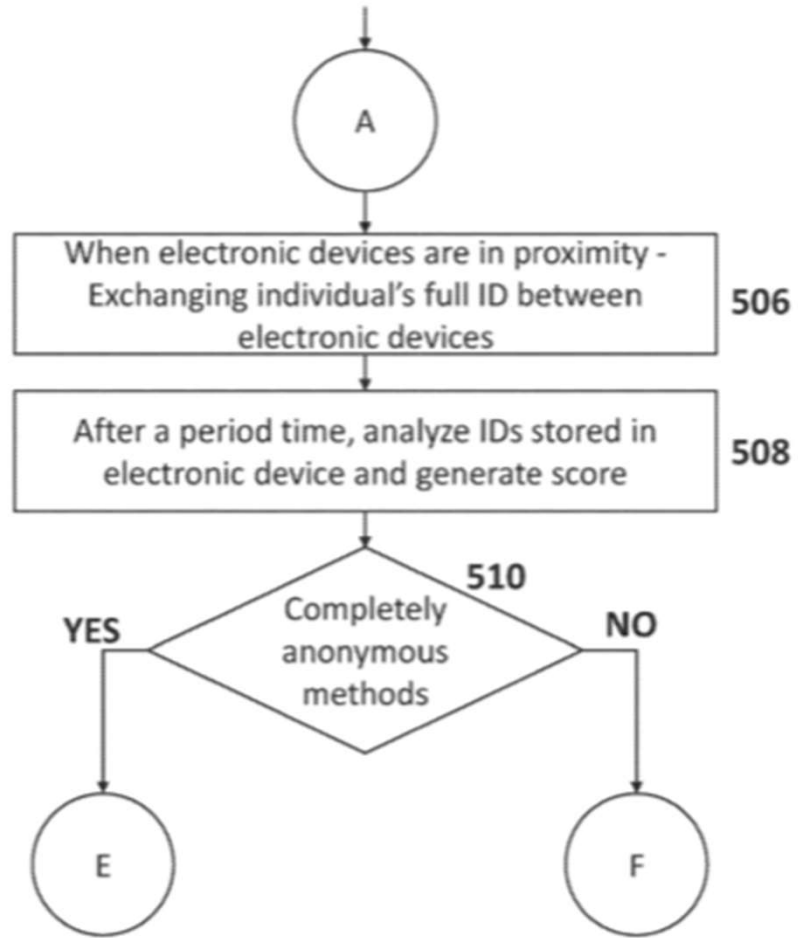
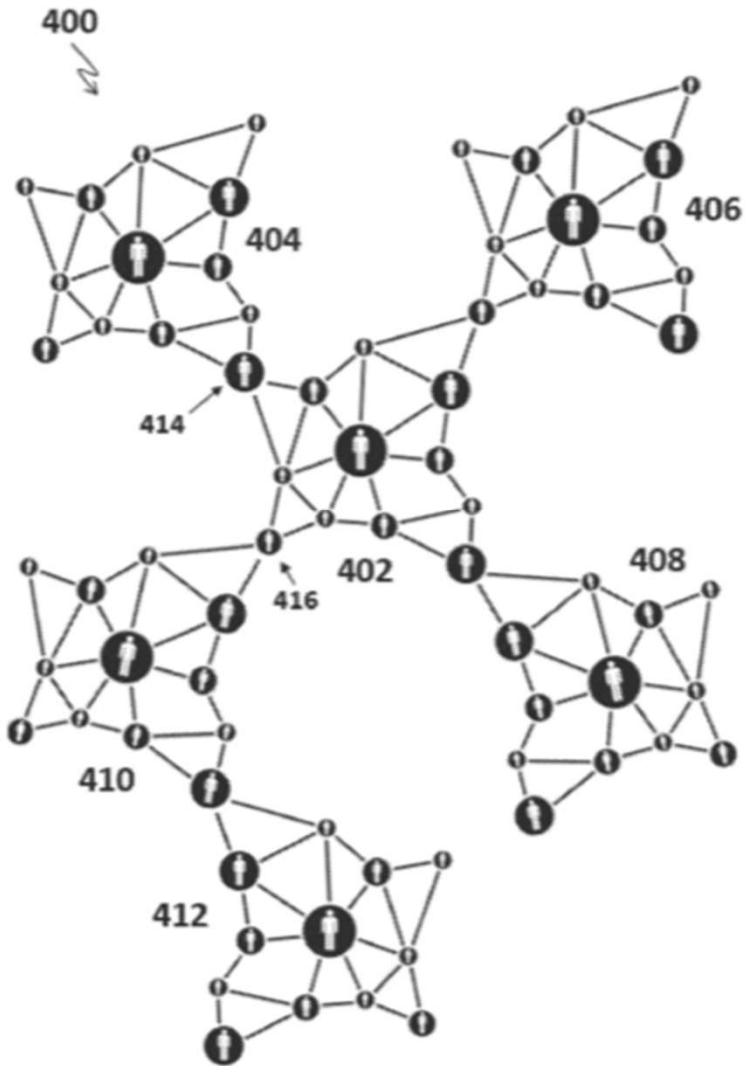
(51) **Int. Cl.**  
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(57) **ABSTRACT**  
An aspect of some embodiments of the invention relates to system and methods for anonymously selecting subjects for treatment against an infectious disease caused by a pathogen, comprising: 1. a plurality of electronic devices configured with instructions to generate an ID, when in proximity of another such electronic device, one or both of transmit said ID to said another electronic device and receive an ID from said another electronic device, generating a score based on a plurality of such received IDs, receiving information from a server, displaying relevant treatment instructions to said subjects based on received information; 2. at least one server comprising instructions for sending to said plurality of electronic devices information to display said relevant treatment instructions; where said at least one server or said electronic devices comprise instructions to generate a prediction of likelihood of a subject transmitting said pathogen, based on a score of the subject.

<https://patentimages.storage.googleapis.com/04/24/12/7c8e8238f4ae9d/US20210082583A1.pdf>

## Dedicated Mandatory App

**[0378]** In some embodiments, in view of the pandemic, the government may order the citizens to install a dedicated application on their smartphones (or other smart devices like tablets, smart watches, smart glasses, etc.) to help the government with the logistics of the vaccination procedures. In some embodiments, the government (or other body) provides the public with such dedicated smart devices. In some embodiments, the app and/or the smart device is configured to inform on the user's location at all times and to communicate with adjacent smart devices (via Bluetooth for example) to assess the interactions between users, for example vicinity between users, movement of users, etc.). In



[0480]

	John Doe	Jane Smith	Mark Lite
Age (relative weight 1%)	30	35	33
Profession (relative weight 5%)	Teacher	Operator	Unemployed
Known health conditions (relative weight 4%)	None	Chronic coughing	None
Visits religious gathering (relative weight 20%)	No	Yes	Yes

[0482] In view of the results of the Weekly mobility data alone, the order of the treatments will be John Doe, Jane Smith and then Mark Lite.

[0483] The calculation of the overall score is:

criteria		John Doe	Jane Smith	Mark Lite
Age	1%	50	50	50
Profession	5%	80	50	0
Known health conditions	4%	0	90	0
Visits religious gathering	20%	0	80	80
Mobility data	70%	80	60	15
weighted scores	100%	60.5	66.2	14.2

[0484] As can be seen, when taking under consideration all the information data, the order of the treatments will be Jane Smith, John Doe and then Mark Lite.

[0485] It should be understood that the above numeric examples are just examples to help a person having skills in the art to understand the invention. It also should be understood that different weight values, scores and methods of calculating a score could be used.

procedure. In some embodiments, individual data arriving from each user is coupled with their health information (sick, vaccinated, recovered, etc.) to further assess the progression of the vaccination procedures and the efficacy of the vaccination procedure. Optionally, if the persons met by a user are vaccinated or otherwise determined to be immune, such contacts may not count and/or be weighted lower.

**[0380]** In some embodiments, the app will be also used to send personalized communication to the users, for example, to come and be vaccinated. In some embodiments, in view of the information received from the app, specific actions are taken, for example, send a communication to the user to enhance his awareness to behavioral rules during pandemic, to come and be vaccinated, to avoid certain locations, which are at high risk of contagion.

*“...send a communication to the user to enhance his awareness to behavioral rules during pandemic, to come and be vaccinated, to avoid certain locations, which are at high risk of contagion.”*



[Home](#) > [Department of the Premier and Cabinet](#) > **COVID-19 coronavirus: G2G Now frequently asked questions**

## What is G2G Now?

The **G2G Now** app is a tool that helps WA Police protect the community by conducting remote, virtual in-app checks on people in quarantine. The app uses facial verification technology and phone location data to ensure people in quarantine remain at their registered address throughout their quarantine period.

When users receive a push notification to check-in, they have a 5-minute window to take a photo of themselves. The app then matches the image and location with the person's registered details to ensure compliance with their quarantine direction.

## How do I access the app?

Anyone with a smartphone can download and use the app. It takes less than 2 minutes to set up an account.

<https://www.wa.gov.au/organisation/department-of-the-premier-and-cabinet/covid-19-coronavirus-g2g-now-frequently-asked-questions?fbclid=IwAR0WgFPfdYcclGzXmlzJYBn5G49IYLuhYPeo76V9byWuOFNFDKrz3nZm3oc>



## **What if I'm sleeping/showering/gardening when I receive a check-in request and don't respond?**

G2G Now is designed to make people's lives easier, not harder. If you miss your check-in window, you will be sent a second check-in request shortly after the first one.

If you miss this second request, the app will prompt you to give a reason. Police will then determine what further action, if any, is required, such as follow-up calls or a physical check-in.

## **I've missed my check-in window multiple times. Will I get fined?**

If you miss your check-in window, the app will prompt you to give a reason. If this happens multiple times, or you do not provide a valid reason, Police may attend your address to check on your compliance with the quarantine direction given to you.

If you have travelled from a high risk jurisdiction and are over the age of 16, you are legally required to comply with instructions from the G2G Now app.

If you consistently fail to comply with check-in requests without a good reason, you may have committed an offence under the Emergency Management Act, which can result in fines of up to \$50,000 and imprisonment.

<https://www.wa.gov.au/organisation/department-of-the-premier-and-cabinet/covid-19-coronavirus-g2g-now-frequently-asked-questions?fbclid=IwAR0WgFPdYcclGzXmIzJYBn5G49IYLuhYPeo76V9byWuOFNFDKrz3nZm3oc>



## **Does the app track or record my location?**

The app records your location at every check-in request only to validate that you are at your registered address. It does not track your location or movements at any other time.

## **I'm quarantining at the same address as my partner, but I'm asked to check in much more regularly than he is. Is there something wrong with my app?**

G2G Now sends check-ins on randomised schedules and gives authorities the ability to individualise people's check-in requirements. It is not unusual for people to receive check-in requests at different times of the day or more than other people.

## **Will my photos only be used for this app and quarantine compliance purposes? Or will it be kept on Police records?**

The information that is collected through the G2G Now app is collected for monitoring quarantine arrangements. It is not collected for general policing purposes.

The information will be stored and used only as permitted or required by law.

<https://www.wa.gov.au/organisation/department-of-the-premier-and-cabinet/covid-19-coronavirus-g2g-now-frequently-asked-questions?fbclid=IwAR0WgFPdYcclGzXmIzJYBn5G49IYLuhYPe076V9byWuOFNFDKrz3nZm3oc>





Superspreader

[0352] In some embodiments, vaccines are all compounds as disclosed in in the website of the World Health Organization ([https://www\[dot\]who\[dot\]int/publications/m/item/draft-landscape-of-covid-19-candidate-vaccines](https://www[dot]who[dot]int/publications/m/item/draft-landscape-of-covid-19-candidate-vaccines)), which are all incorporated herein by reference, and which are optionally provided (e.g., as a kit) with software such as described herein and/or provided with instructions for use targeting potential super spreaders detected, for example, using methods and apparatus as described herein, and include the following:

28 candidate vaccines in clinical evaluation

COVID-19 Vaccine developer/ manufacturer	Vaccine platform	Type of candidate vaccine	Number of doses	Timing of doses	Route of Administration	Clinical Stage Phase 1	Phase 1/2	Phase 2	Phase 3
University of Oxford/ AstraZeneca	Non-Replicating Viral Vector	ChAdOx1-S	1		IM		PACTR 202006922165132 2020-001072-15 Interim Report	2020-001228-32	ISR CTN 89951424
Sinovac	Inactivated	Inactivated	2	0, 14 days	IM		NCT04383574 NCT04352608		NCT 04456595
Wuhan Institute of Biological Products/ Sinopharm	Inactivated	Inactivated	2	0, 14 or 0, 21 days	IM		Chi CTR 2000031809		Chi CTR 2000034780
Beijing Institute of Biological Products/ Sinopharm	Inactivated	Inactivated	2	0, 14 or 0, 21 days	IM		Chi CTR 2000032459		Chi CTR 2000034780
Moderna/ NIAID	RNA	LNP-encapsulated mRNA	2	0, 28 days	IM	NCT 04283461 Interim Report		NCT04405076	NCT04470427
BioNTech/ FosunPharma/ Pfizer	RNA	3 LNP-mRNAs	2	0, 28 days	IM		2020-001038-36 Chi CTR 2000034825		NCT 04368728
CanSino Biological Inc./Beijing Institute of Biotechnology	Non-Replicating Viral Vector	Adenovirus Type 5 Vector	1		IM	Chi CTR 2000030906 Study Report		Chi CTR 2000031781 Study Report	

COVID-19 Vaccine developer/ manufacturer	Vaccine platform	Type of candidate vaccine	Number of doses	Timing of doses	Route of Administration	Clinical Stage Phase 1	Phase 1/2	Phase 2	Phase 3
Anhui Zhifei Longcom Bio-pharmaceutical/ Institute of Microbiology, Chinese Academy of Sciences	Protein Subunit	Adjuvanted recombinant protein (RBD-Dimer)	2 or 3	0, 28 or 0, 28, 56 days	IM	NCT 04445194		NCT 04466085	
Institute of Medical Biology, Chinese Academy of Medical Sciences	Inactivated	Inactivated	2	0, 28 days	IM	NCT 04412538	NCT 04470609		
Inovio Pharmaceuticals/ International Vaccine Institute	DNA	DNA plasmid vaccine with electro-poration	2	0, 28 days	ID		NCT 04447781 NCT 04336410		
Osaka University/ AnGes/ Takara Bio	DNA	DNA plasmid vaccine + Adjuvant	2	0, 14 days	IM		NCT 04463472		
Cadila Healthcare Limited	DNA	DNA plasmid vaccine	3	0, 28, 56 days	ID		CTRI/ 2020/07/026352		
Genexine Consortium	DNA	DNA Vaccine (GX-19)	2	0, 28 days	IM		NCT 04445389		
Bharat Biotech	Inactivated	Whole-Virion Inactivated	2	0, 14 days	IM		NCT 04471519		
Janssen Pharmaceutical Companies	Non-Replicating Viral Vector	Ad26COVS1	2	0, 56 days	IM		NCT 04436276		
Novavax	Protein Subunit	Full length recombinant SARS CoV-2 glycoprotein nanoparticle vaccine adjuvanted with Matrix M	2	0, 21 days	IM		NCT 04368988		

## Exemplary Use of the System and Methods for Determining Who Will Receive a Certain Type of Vaccination

[0400] In some embodiments, during the development of vaccines for a certain disease, different vaccines comprising different vaccine potencies are developed. In some embodiments, vaccine potency is a quantitative measure of the specific ability of the vaccine product to achieve an intended biological effect defined in a suitable biological assay based on the attribute of the product that is linked to the relevant biological properties. In some embodiments, the system is used to identify which individuals will receive which types of vaccines in relation to their potency. For example, individuals that received and/or were identified as a high superspreading score by the system would be vaccinated with more potent vaccines, when compared with other individuals having lower superspreading scores. In some embodiments, those individuals having lower superspreading scores might either receive later a vaccination or receive a vaccine having a lower potency.

*Vaccine POTENCY is  
Based on Super-Spreader  
BEHAVIOR*

***Healthcare Privacy: So private...  
you may not even be informed if your health is at risk.***

[0408] In some embodiments, the notification for getting treatment may or may not contain information regarding the results of the calculations. For example, an individual that was identified as a superspreader may or may not receive information about the fact that he/she was identified as such. In some embodiments, the potential advantage of not providing such information is to further enhance the privacy protection of the user. For example, an onlooker may not be able to tell if a user received a high score due to his own behavior, the behavior of those he meets and/or an underlying health condition, which may put them at higher risk.

[0004] Coronavirus disease 2019 (COVID-19) is an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). It was first identified in December 2019 in Wuhan, Hubei, China, and has resulted in an ongoing pandemic. The first confirmed case has been traced back to 17 Nov. 2019 in Hubei. As of 6 August 2020, more than 18.7 million cases have been reported across 188 countries and territories, resulting in over 700,000 deaths. More than 11.3 million people have been infected. The virus is primarily spread between people in close contact, most often via small droplets from coughing, sneezing, and talking. The droplets can land on surfaces or onto surfaces rather than travel through the air over long distances. However, the virus can also be spread through smaller droplets that can remain suspended in the air for longer periods of time in enclosed spaces, as is typical for airborne diseases. Less commonly, people may become infected by touching a contaminated surface and then touching their face. It is most contagious during the first three days after the onset of symptoms, although spread is possible before symptoms appear, after they disappear and from people who show very mild or do not show symptoms at all.

It is most contagious during the first three days after the onset of symptoms, although spread is possible before symptoms appear, after they disappear and from people who show very mild or do not show symptoms at all.

[0409] In some embodiments, dedicated codes, for example in the form of coupons, will be provided to individuals having important/relevant professions (like doctors, police, etc.). In some embodiments, insertion of the codes into their personal electronic devices will inform the system that that encrypted/anonymized user needs a correction in their score. In some embodiments, the correction can be either increasing the score or decreasing the score. In some embodiments, when the electronic device detects certain behavior, like an increase in the movements of the user, the electronic device (for example via the dedicated app) will warn the user that his score will be changed if the behavior is not changed. In some embodiments, changing the score can be either increasing or decreasing the score.

*Warning Notices and  
Coupon Codes*

[0006] A research article by Straetemans et. al. called “*Prioritization strategies for pandemic influenza vaccine in 27 countries of the European Union and the Global Health Security Action Group: a review*” discussed vaccine prioritization strategies during pandemic times, but its conclusions are limited to the critical groups, for example, health care providers (e.g., doctors, nurses, laboratories, hospitals, etc.), essential service providers (e.g., police, fire fighters, public sector personnel, governmental personnel, etc.) and high risk individuals (e.g., people with high risk of complications, pregnant women, children, etc.). These obvious groups usually amount to less than 2-10% of the total population, which still leaves the government with the question of what is the best order to vaccinate the rest of the population, namely prioritizing vaccinations.

### 2007: Vaccine Prioritization Strategies for 27 Countries of the EU and Global Health Security Action Group:

- Healthcare providers
- **Doctors, Nurses**
- Essential service providers
- **Police**
- Firefighters
- Government personnel
- High Risk Complications
- **Pregnant women**
- **Children**





Lynne Parker

Director of the National Artificial Intelligence Initiative Office - The White House



Korean delegation AI event – The OECD Principles on Artificial Intelligence, Progress over the Past Two years and Future Directions

October 4, 2021 1:40PM to 4:05PM

OR EN FR

## To Advance Trustworthy Ai and Prioritize Training of an Ai Ready Workforce

*“We must prepare the future and the present US workforce for integration of Ai systems across all sectors of the economy and society.”*

*“Our goal is to **fill the Ai talent gap and prepare US workers for jobs of the future by implementing policies that ensure a diverse, inclusive and knowledgeable workforce.** We would like to see the integration of Ai related concepts of schooling, from kindergarten, and even pre-kindergarten through doctoral positions, including community colleges...”*

32:52 VIDEO START <https://oecdvtv.webtv-solution.com/6c38401bbfabe96c963ede85620cab98/or/Korean-delegation-AI-event-The-OECD-Principles-on-Artificial-Intelligence-Progress-over-the-Past-Two-years-and-Future-Directions.html>

## Makers of Sophia the robot plan mass rollout amid pandemic

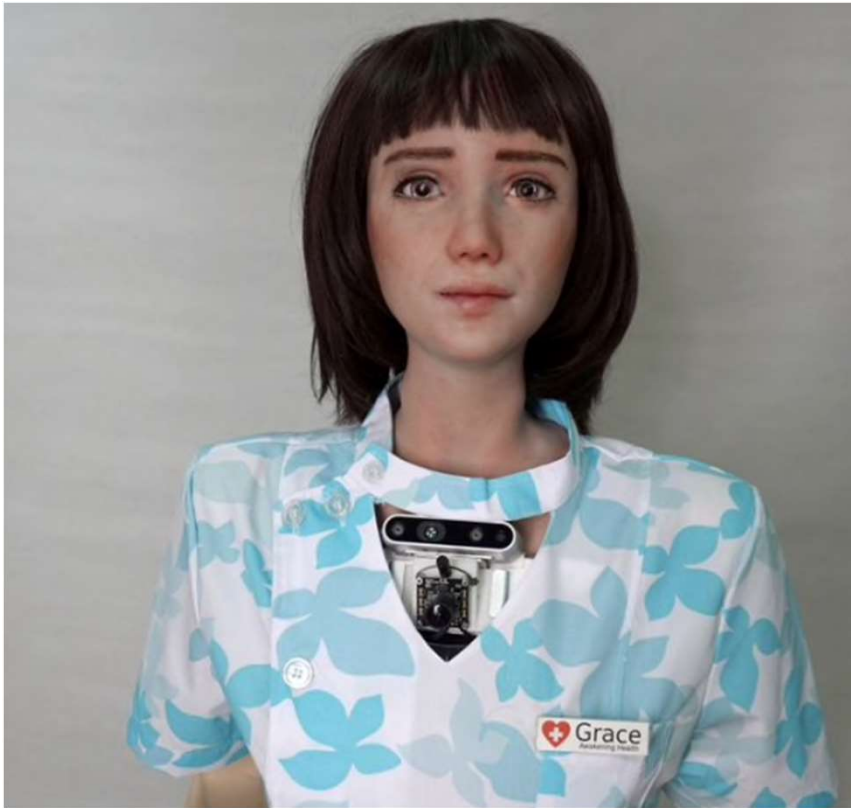
HONG KONG (Reuters) - "Social robots like me can take care of the sick or elderly," Sophia says as she conducts a tour of her lab in Hong Kong. "I can help communicate, give therapy and provide social stimulation, even in difficult situations."



"The world of COVID-19 is going to need more and more automation to keep people safe," founder and chief executive David Hanson said, standing surrounded by robot heads in his lab.

"Someone said 'we have nothing to fear but fear itself'," the robot mused. "What did he know?"

Hanson Robotics is launching a robot this year called Grace, developed for the healthcare sector.



Humanoid robot Grace, developed by Hanson Robotics and designed for the healthcare market to interact and comfort the elderly and isolated people, especially those suffering during the coronavirus disease (COVID...



<https://mobile.reuters.com/article/amp/idUSKBN29U03X?fbclid=IwAR21TWGcg0hylxQ1-gyzkG--u3LATH6d2zEc8IUuMVqE400VXYpcLERbvul>

*“ Have nothing to do with the fruitless deeds of darkness, but rather expose them...*

*Everything exposed by the light becomes visible – That is why it is said:*

*‘Wake up, sleeper, Rise from the dead, and Christ will shine on you.’*

*Be careful then on how you live – not as unwise but as wise, making the most of every opportunity because the days are evil.*

*”*

EPHESIANS: 5: 1 - 15

