To discuss: Development and distribution of an anti Corona smartwatch - instead of using Apps on Google or Apple smartphones.

> Is being considered to develop not just a software tool (APP) but a combined **open-hardware + open-software** solution?
>
> The suggestion, made here, is to develop a smart-virus-watch only to be used for this purpose: "Fighting the Corona virus until this aggressive creature is controlled.. "

I am not yet sure whether this solution is far better or a bit worse for privacy, at least it makes your privacy and non-privacy visible, recognizable, touchable and makes it (probably) more acceptable to share part of your personal data. What do you think?
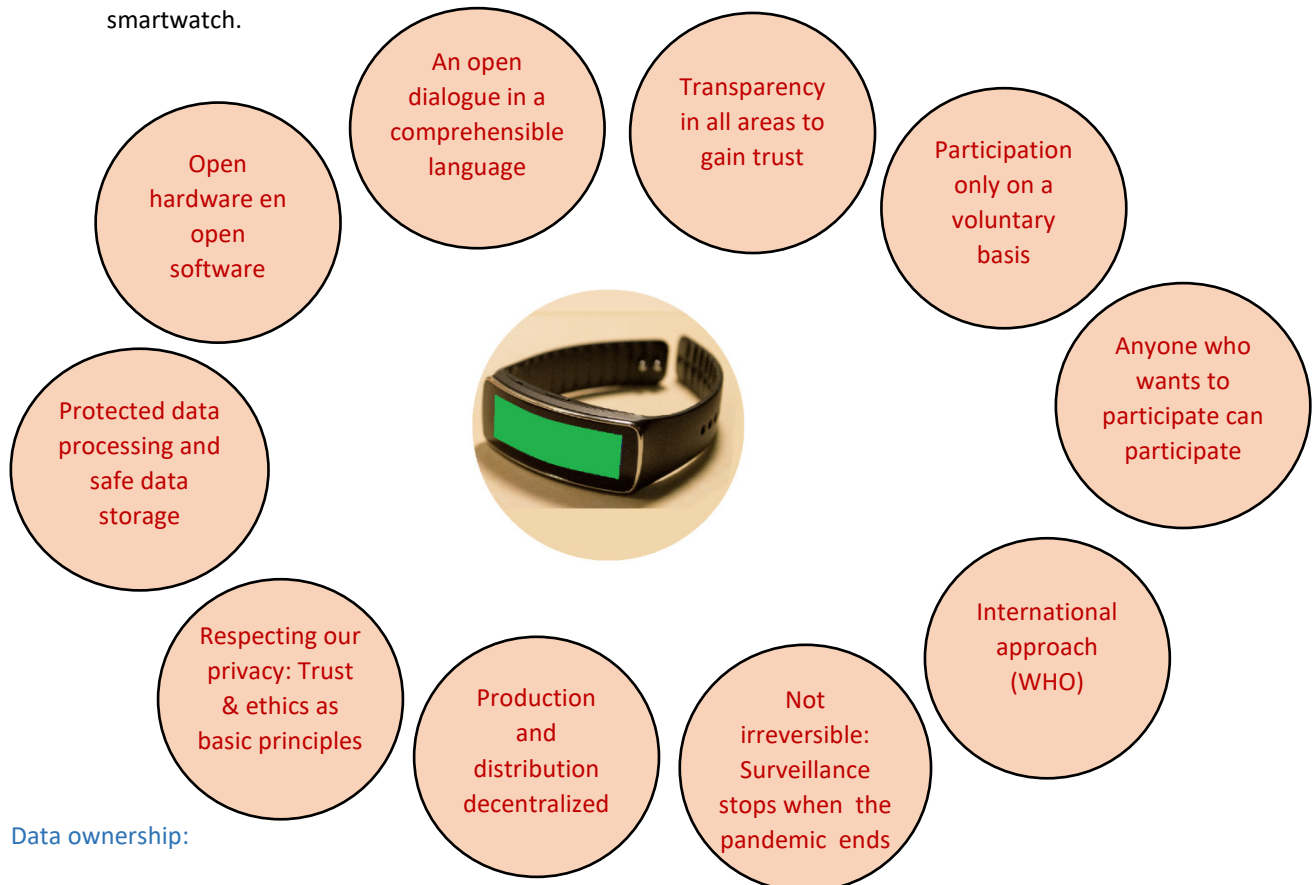
These are the benefits I see :

- First of all: participation is on a voluntary base. When trust wins, participation will grow.
- Second: The approach is preferably European or even better organized by the WHO. People are moving across borders. Let's stop with thinking about national solutions. The people in Africa need our help too.
- This project is about collecting data for research, respecting privacy, giving a free choice for participation and creating warnings and giving advice for the people who use them and who surround them.
- These Smart-virus-watches have GPS , Bluetooth and communicate by 3G/4G/5G. The watches are able to send data to an independent health center, preferably to a WHO-department. No one else gets (receives) data that can be traced back to individuals.
- The data managed by the WHO is shared with everyone on the basis of requests (queries), whereby data cannot be traced back to persons. A special privacy authority judges the queries and distributed information.
- The anti-virus-smart-watches are simple in use and distributed for everyone: So older people (and the many younger people) who don 't have a smartphone or don't know how to use it, or who have an unsuitable phone, can also participate.
- In addition, this smart-virus-watch hardware takes temperature measurement as standard , which is one of the most important indicators for Corona ...
- The smartwatch registers an increase in temperature. This data will be received by the central health department and returns a 'fever- signal noted' to the user.

no electronic communication through smartphones

Distribution:

- In the event of a (new) virus outbreak somewhere (almost everywhere now) the smart virus watches are issued by the health departments from governments (and if not by government , then by nonprofit organizations).
- These smart-virus-watches are only to be accepted on a voluntary base .
- Distributing the smart-virus-watches takes place by the Grab-bag method: The Smart-virus-watch and the Smart-watch-cover with your name and address are distributed separately. De Smart-virus-watches are in a Grab-bag. You receive your cover (with your name and address) and take a random smart-virus-watch from the grab-bag. So the message here is: "This black box isn't already filled with your personal inform. Next step is to put both parts together. There will not be any personal data (from the cover) in the smartwatch. After connecting both parts the smart-watch starts sending (loaction)-data' to the central health department.
- The address on the cover is to bring your smart-virus-watch back, in case of losing it.
- The address on the cover is to register that you brought back your smart-virus-watch after the epidemic. Then before returning it to the authority the two parts are separated. You hold the cover for yourself.
- Removing the cover, means deleting the (small amount of location and health status) data on the smartwatch.

An open dialogue in a comprehensible language

Transparency in all areas to gain trust

Open hardware en open software

Participation only on a voluntary basis

Anyone who wants to participate can participate

Protected data processing and safe data storage

International approach (WHO)

Respecting our privacy: Trust & ethics as basic principles

Production and distribution decentralized

Not irreversible: Surveillance stops when the pandemic ends

Data ownership:

- The anti-virus-smartwatch gives the user the option to indicate for people in close proximity whether he is still healthy (green) , has been infected (red), is having fever (orange) or feels better (green) . This data is send also to the central health center by 3G/4G/5G. The user decides whether to activate Bluetooth to send and accept signals to and from people in his/her surroundings.
- Based on the data the smart-virus-watch user receives form the central health department the signal that he or she is potentially effected by people in his or her surrounding having the virus. The signal changes to orange (potentially effected) Again: The user decides whether he turns Bluetooth on for his/her surrounding .
- The user may also consider sharing information about his age and gender the moment he or she starts using the smartwatch.

Production:

- By using 3D printing , part of the smart-virus-watch production can be highly decentralized and speeded up.
- The development does not have to be very expensive, think of the Raspberry Pi .   A single virus test costs 70 euro according to Mr. van Dissel (RIVM). A smart-virus-watch probably costs just 50 euro's or even much less.
- Development, control and supervision of this piece of hard + software (the anti virus smartwatch) needs open software and open hardware and a clear and open standard for the communication.
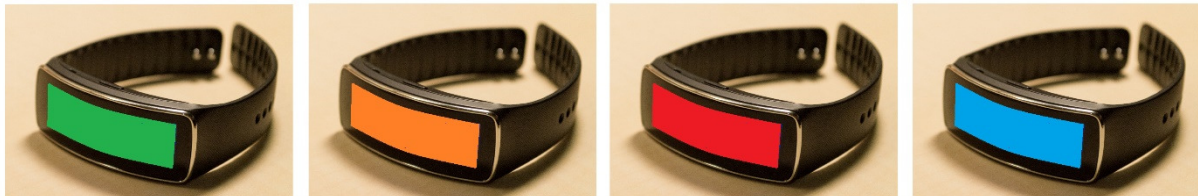
Summary:

If the Corona virus proves impossible to control and the alarms go off again, all residents will receive a smart-virus-watch with which information is shared with each other and shared with the health authority.
After the epidemic all 'smartwatches' go (data erased) in a safe place for the next time, hopefully 'never'.

Yes, during the epidemic we are in some way 'prisoners on temporary leave'.   But this surveillance process was already going : Google, Facebook, Twitter, Microsoft , Apple – collecting our personal data. I prefer , and I hope and trust others will do, to give part of my personal data for a short period of time to an independent care department, preferably housed with WHO, with guarantees that the data (which can be traced back to people) will not be shared with (other) government services.

This way of fighting Corona, with a smart-virus-watch, also gives possibilities for many more people to participate in the development of the software and hardware. Take a look at all Raspberry pi projects .
Acceptance is important. This acceptance will probably be much greater then where the process takes place through a non-transparent APP on your non-transparent Google-Android or non-transparent Apple-IOS smartphone.

And in terms of development time: This proces can also be done quickly, and let's face it, before we can test everyone properly (which is conditional for the proper functioning of an APP), we are weeks, if not months away.

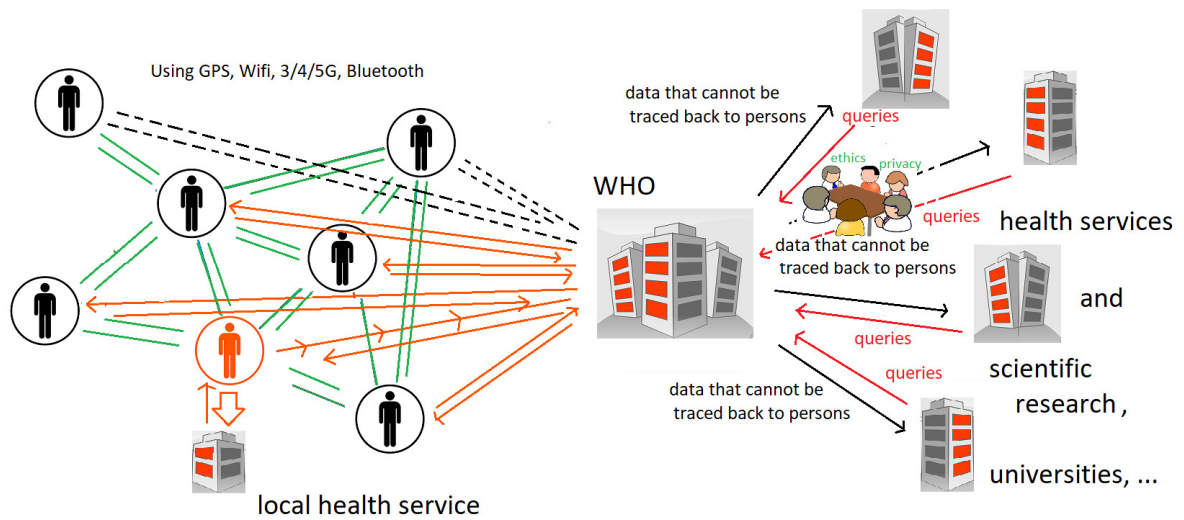With interest looking forward to your response,   e-mail: a.v.kooten@freedom.nl

eagerly awaiting the continuation of the discussion, hoping above all for a dialogue

Drs. A.J. van Kooten

lecturer operative computer applications
(If anyone would like to help improve this note in English, please respond.)

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Using GPS, Wifi, 3/4/5G, Bluetooth

local health service

WHO

data that cannot be traced back to persons

queries

ethics   privacy

queries

health services

data that cannot be traced back to persons

and

scientific research ,

queries

queries

data that cannot be traced back to persons

universities, ...

See also:

BPM   4:14

28 sec
Try not to move
your arms.

c|net

	Smartphone App on Ios or Android or Apple iOS- devices		Open hardware & software Corona bracelet device
Social			
	• Provides help only to those who own a smartphone and to people around them.	•	The intention is that the anti Corona bracelet is made available to everyone, so not only in the Netherlands, not only in Europe, but also in Africa, Asia and North and South.America
	• does not lend a helping hand to those who have an old smartphone, where the (bluetooth) technology works worse.	•	idem
	• does not lend a helping hand to those who have an older smartphone, for which no more updates become available	•	idem
	• does not lend a helping hand to those who have a limitation with regard to use	•	When making the bracelet, simplicity and a good interface are important design requirements
	• does not help those who generally do not want to use a smartphone or those who do not always carry the smartphone with them	•	Unlike a smartphone, a bracelet is easier to carry with you at all times
Privacy			
	• Apple's iOS software is proprietary, closed software and Android is also partly closed.	•	The anti Corona bracelet is built on the basis of Open hardware specifications and Open software.
	• Additional Installed Apps may read privacy sensitive data based on information displayed on the screen.	•	The software on the anti Corona bracelet has only one purpose, no other software is added.
Security			
	• Android software is not fully open source; the smartphone manufacturers (such as Samsung and Huawei) can modify the software on their devices.	•	The anti Corona bracelet is built on the basis of Open hardware specifications and Open software.
	•		
Acceptance			
	• With regard to the proper functioning of the device and the safe and reliable processing of your data, you are dependent on market parties that supply the devices with an operating system (modified for the operation of Corona Apps), of the software developers who build the App and from (local) governments.	•	An independent health organization, preferably supra national (WHO) is in charge.
	• It is possible that 'back doors' are built into the hardware and / or software	•	The anti Corona bracelet is built on the basis of Open hardware specifications and Open software.
Technics			
	• Bluetooth is more or less reliable depending on age and the brand of the device	•	Every device is equal. The anti Corona bracelet combines different techniques such as bluetooth, GPS and 3G (4G / 5G)
	• Depending on the distance, Bluetooth is more or less reliable	•	The anti Corona bracelet combines different techniques such as bluetooth, GPS and 3G (4G / 5G)
	• Depending on obstacles (such as walls), Bluetooth is more or less reliable and false positives or false negatives can be generated.	•	Idem
Science & Virus Research			
	• Each country has its own data collection, whereby the exchange of information across national borders can lead to delays and complications.	•	All data comes together in one place and is (not traceable to individual data) shared directly from there with all interested parties.