Tracking for Covid 19: An experimental method more than a «miracle» solution

Galonnier V.

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ABSTRACT

Tracking refers here to the use of digital systems to identify or track an individual. In the context of the coronavirus pandemic, tracking, through its ability to find individuals likely to have been contaminated in order to isolate or test them, has emerged as one of the methods that can fight against the spread of the virus. Tracking applications, which are listed and analysed here, were first used in Asia (China, Korea, Singapore, Taiwan) and then in the West, in France via the government application "StopCovid", giving rise to a wide-ranging debate. Memorandum 2 : overview of the studies and projects registered on WPRN database

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The World Pandemic Research Network's database points to several issues raised by research. Four themes appear to be central to the analyses of researchers: the degree of efficiency of tracking applications; the level of acceptance of tracking by the population; the risk for the protection of personal data; the trade-offs that public authorities must makeon digital technology (sovereignty and surveillance).

Effectiveness is controversial and will have to be assessed by future studies

Technological surveillance tools are increasingly used for public health purposes and telephone tracking has already been used in the context of disasters or epidemics, as this article, avaible on the WPRN database reminds us. Thus, the development of applications in the context of the pandemic has been driven by the enthusiasm of part of the scientific community. However, there is debate about their effectiveness and no consensus has emerged on the issue. Initiale studies suggest that a large percentage of users in the population (70 or 80%) is necessary for applications to be effective.

However, no country has reached such a threshold, due to technical limitations (insufficient share of the population equipped with mobile phones or wishing to leave Bluetooth, etc.) or lack of enthusiasm of citizens. Some medical studies also point out that such tracking could only be really useful at the beginning of an epidemic. While the results seem positive in the Korean case, it would seem hasty to draw relevant lessons for Europe, as data collection is carried out there in the framework of a very intrusive surveillance systeme based on the cross-referencing of geolocation, police, banking and telecommunications data, and it is difficult to isolate the contribution of tracking alone in the management of the pandemic.

So, while extensive research has focused on the technical potential of tracking to combat the pandemic, as well as its potential limitations. Studies are now needed to evaluate the effectiveness of this method with significant feedback and to propose ways to improve it.

Tracking tools seem relatively well accepted by citizens when guarantees are provided for the protection of personal data

To be effective, tracking applications must be used on a massive scale. As the coercive measure of mandatory use is not popular in Europe, a significant consent of the population is necessary. Although citizens are in favour of the applications (59% of French people said they were in favour of StopCovid when it was launched, their choice to install them depends on a large number of factors.

A large literature, mainly American and available on the WPRN database, has examined in detail the characteristics that tracking applications must have in order to gain the greatest approval. Centralized data collection and the guarantee of private and anonymized data appear to be the priority of the majority of citizens in order to grant their consent. The status of the actor (state or private Tech actor) does not seem to have any influence.

These studies, which show the central importance of trust, give the public authorities solid arguments for developing communication campaigns aimed at citizens. Important research in behavioural social sciences has supported the application design process. Further research is now required to assess their actual level of acceptance by citizens. These studies could be of a comparative nature to analyse reactions in different cultural contexts.

A risk to be further assessed regarding the protection of personal data and the development of technological surveillance in society.

Concerns have been expressed by citizens, associations and public actors regarding the protection of personal data. The issue is central because, as this study avaible in WPRN points out, if citizens lose confidence in government, they may no longer follow its public health recommendations.

In France, solid technical guarantees have been put forward concerning StopCovid, notably through the pseudonymisation of data and the use of Bluetooth. However, several actors point to certain persistent risks: the possibility of depseudonymising and therefore de-anonymising data after the fact, or even hacking or the possibility given to everyone to trace an individual who has tested positive.

Although health data are particularly sensitive, the risk of breaching the privacy of personal data seems less important in anti-Covid applications than in applications already massively used daily by the population. However, their presence puts the digital dependency of our societies on the political and media agenda. Indeed, these applications are part of a more global context of increased digitization of the health sector.

Many researchers are expressing their points of view and some point out the infringements on individual liberties particularly through the merging of

different databases, which is likely to increase with the development of technological surveillance tools in more and more sectors.

A trend in international research in recent years has focused on the links between digital and surveillance society. In this sense and that of several recently published fora, studies could be carried out to assess citizens' perceptions of the use of technology for control or surveillance purposes.

Communities and states must carry out an exercise of proportionality between, on the one hand, the potential of technological solutions and, on the other hand, the protection of their sovereignty and the guarantee of the individual freedoms of their citizens.

The involvement of the major Tech companies (GAFAM) in the production of these applications is very important. This article, wich can be consulted on WPRN underlines that although some studies consider that the tracking technologies proposed by the GAFAMs offer better guarantees of respect for privacy or are more efficient than those proposed by the public authorities, other studies point out the risk of infringing the sovereignty of States and communities through increased dependence on these companies and through the delegation of missions of first-rate public services to private actors. Work showing the long-term multidimensional impacts of a dependence on Tech actors, updated in the context of the pandemic, would offer interesting avenues of reflection for public authorities.

The «Smart City» has significant potential to innovate and find ways to combat the pandemic and those to come. However, many researchers urge public authorities to remain extremely cautious. The urgency of a crisis should not lead to « technological solutionism » by abandoning careful study of the consequences, including long-term consequences, of the use of surveillance tools on society. Similarly, the experimental potential of technological tools in the fight against the pandemic should not distract the attention of public authorities from the priority to be given to methods that have proved their worth: stock of masks, medical equipment and tests.

In short, the synthesis of research work suggests that applications to combat Covid should be considered as experimental methods rather than «miracle» solutions. Research in the field must be continued and more study must be

made of the multiple long-term implications for society, not just the technical aspects of implementation. The work of designing more effective applications that offer better guarantees in terms of individual liberties to obtain better consent from the population must be implemented now, with a view to a possible second wave of the pandemic.

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