Restarting the Economy and Avoiding Big Brother:

We need to know who has antibodies and employ them in the front line

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Summary: Digital identity that allows certification of the user's health status, similar to today's payment acceptance mechanisms, can create safer working environments and consumer experiences (restaurants, hotels, meetings) while protecting personal privacy.

A New Economic Resource to help Restart the Economy

Soon we expect to have more than 30% unemployment, and repeated waves of infection for at least two years, preventing normal economic recovery. Finance, government, travel, hospitality, and manufacturing will be devastated, with widespread bankruptcies and business closings. We are going to have to restart the economy starting from a depression-level situation. But how?

One economically significant consequence of these waves of infection is creation a "safe worker" workforce. This workforce consists of people who have been infected and then recovered, so that they can be certified as less likely to become re-infected. Importantly, this disease-resistant workforce will generally be young, but also generally from the poorer communities that are being disproportionally affected.

Can these "safe workers" help restart the economy? A crude, brute-force version of this idea has been behind the most successful efforts at suppressing the disease and restarting the economy (Taiwan, Korea, Singapore). They relied on "big brother" use of personal data, and authoritarian enforcement of quarantine and isolation. As the disease and recovery progresses, these countries now have a *certified* group of safe workers that is helping restart their economies.

In democratic countries the use of "big brother" data methods is feared because of the danger that it will continued to be used by government after the immediate emergency. The key to avoiding this danger is to keep data local, in the hands of institutions that already have a need to know (like hospitals) or cooperatives which are controlled by the local community.

This sort of health certification is similar to how we already require food workers to obtain certification that they don't have certain infectious diseases, and that childcare workers have their immunization shots. Like these more familiar diseases, recovery from COVID-19 or presence of antibodies does not confer absolute immunity, and indeed the level of disease

resistance and duration is currently uncertain, but just as with these previous diseases the use of health certification can quite helpful despite the fact that some people will be re-infected.

A Plan: Start By Making Safety Easy

Imagine a society where hospitals, city government, or local cooperative institutions (such as local credit unions) serve as repositories for citizens' health data, much as they already do for citizen's financial, educational and operating license status. This personal data forms the basis of each citizen's *digital identity*, and determines their ability to legally perform various actions (e.g., making a credit card payment, employment as doctor, entering a bar). In this society a citizen can certify their health status to a participating merchant or employer in the same way their residence, age, or credit worthiness is already certified without endangering their personal privacy.

Moreover, with such certification available government could offer financial incentives for employment of safe workers, and to motivate safe workers to take jobs that require customer contact. They could also provide incentives for uninfected workers to take jobs that have less exposure to infection, and help make sure they stay safe. Similarly, merchants could (for instance) certify that their business has only safe employees in customer-facing positions, just as government currently does for food workers, health professionals, and child-care workers.

The major hurdle to implement this vision is sharing of health data certifications to citizens, data which is held by the hospital, city government, their credit union, or similar organization. In the past this sort of certification was done by having paper credentials issued by the relevant local institution. Unfortunately, paper certificates are easy to forge. More secure certification is possible over mobile telephones, similar to the way we currently process digital payments, and could be easily integrated into the digital identity infrastructure that is already used for authenticating payments, residence, and other sorts of personal status information.

Digital certification using mobile networks has the advantage of potentially being safer, more convenient, and less expensive, but we need to do it right and avoid "big brother" solutions. My hope is that we will build on the lessons learned from dealing with other infectious diseases, and keep the data local and under user control.