

Is "remote" the "new normal": Reflections on the COVID-19 pandemic, technology & humankind

The COVID-19 pandemic forced governments to urge full or partial lockdown measures to slow the spread of the pandemic. By end of March 2020 more than 100 countries "lockdowned" billions of people. During that time Yvonne Rogers wrote a series of blog articles on "Remote" structured around the themes of living, working, numbers and tracking (the full articles and more posts are available on her website <https://www.interactiveingredients.com>). She asks is "remote" the new normal? As we contemplate when we will all meet again face to face, it can help to reflect on what "remote" means now for living and working, but also provide refreshing thoughts on how we plan to slow down the pandemic with technology and safe lives.

by Yvonne Rogers

Remote Working: March 19th 2020

Since March 12th, 2020 we have been working remotely as the university instructed us to do so because of the escalation of coronavirus. It feels like I have had more videoconferencing meetings than hot dinners! One moment it is Skype, the next Teams and then Zoom – many have been back-to-back. Even though it is great that we can keep in touch in this virtual way, it is frankly exhausting – but in a different way from my usual tiring day at work. While my twice daily train commute often takes its toll at the end of the day, sat being glued to a screen for hours on end, talking to virtual colleagues and students, elevates fatigue to a new dimension. It is not a physical exhaustion but more enervating, like how one can feel after a long Sunday, when you have indulged in too much binge-watching.

This phenomenon has since been coined as "Zoom fatigue". Part of the new tiredness also stems from having quite different kinds of meetings than usual; having to deal with so many updates and breaking news each day, on what has been planned, decided, revealed and mandated by government, country, university or at the departmental level. Right now, there is an awful lot of 'cascading' interspersed with checking up and reassuring each other. There seems to be much less 'actual' work'; but one hopes this will return once routines begin to settle into place.

Then out of the blue you might get an email from one of your colleagues letting you know they are not feeling well and have begun self-isolating. It is quite anxiety-inducing, worrying if they have got COVID-19. I have heard now from quite a few people that they have developed flu-like symptoms and are self-isolating; some seem more serious than others. It is all a bit discombobulating, and Russian roulette-like. You can but hope they will be better the next day.

Today it was raining and so we put our umbrellas up; making it easier for us to 'social distance'. At one point I entered a shop, and while waiting in line, other customers came in and stood two metres apart from us and each other – abiding by the government's guidance.

It felt a little strange and silly as we skirted around the small place. But even though it seemed unnatural it felt prudent.

Later in the morning, when I peered out of my study window that looks onto a primary school playground, I saw many 5-6 years old children playing together during their break time as if they did not have a care in the world (as it happens it was probably for the last time as UK schools begin to close). For them the concept of social distancing must seem alien. As for taking part in social isolation, it must seem even stranger, as to why they can't go out to play but instead must stay indoors without physical contact with their grandparents or playmates.

This new world order brings out the best and worst in people. There are so many acts of kindness being reported it makes you feel warm and fuzzy, realizing that, as human beings, we like to look out for each other. However, the flipside is just how many people are looking out for themselves. Many can't resist the temptation to stock up on tins, bread, toilet paper and other staples. Panic buying maybe, but it gives them something to do and makes them feel safe. I found myself today, after failing to find any cereal left on the shelves, wondering if I should buy the last remaining cereal bar that I spotted. I would never normally buy such a thing let alone eat one. It is not easy to restrain oneself when irrational fears enter our psyche. As it turned out, one of my neighbours came to the rescue and brought round a tasty loaf of bread.

As we have all started to sign off our emails with: 'Stay safe'.

Remove Living: March 25th 2020

So official lockdown kicked in on Monday March 23rd 2020 for us living in the UK. The rules are a bit more lenient than in some countries, where they have draconian curfew measures in place. Here, we are allowed to leave home for one exercise a day, and to go shopping to buy necessary food and medicine. We are also allowed to go to work if we absolutely can't work from home. So for the time being if you are a construction worker you can carry on as normal – so long as you social distance. Good time to be a crane operator – high in the sky looking down on empty streets. I suspect not for long. It must be very difficult for a government to balance its country's economy when deciding which strategies to use try to flatten the pandemic curve that will have most effect – while determining how best to change human behaviour in a way that is so very different from how people normally live their lives.

Yesterday, I did my beach walk alone at 8.00a.m to start the day. It was full of joggers and dog walkers. There was plenty of space so we managed to keep our distance. The sea looked calm and serene and for that hour one could think of something else other than Coronavirus. Today, I am saving up my permitted outside exercise for later in the day. By mid-afternoon yesterday I was getting quite restless. At one point I looked at my watch thinking it was 4.15p.m – soon time for a planned social chat with a friend – only to then discover it was actually 3.15p.m. Normally, being surprised by finding I have an extra hour would be a joy. I can fill it in easily by catching up on work. Yesterday, I can honestly say my heart sank a little, reminding me of when I was a teenager on a long Sunday when the clock stands still ...

Meanwhile, all around us is a flurry of activity online. I see a lovely Amanda is streaming her yoga class to us at UCL on Friday at work. A couple just got married in Birmingham before the country banned weddings; over 100 guests watched it being live streamed on Facebook. There are also sweet videos of grandchildren, now doing the rounds, waving at their grandparents through the windows or patio doors in their garden, some even squashing their little noses up to the glass. Lots of people have celebrated their birthdays with their friends family and by virtually holding their birthday cakes up for them to see.

Eating alone together online has also started to become popular again amongst families and friends. I remember a few years ago when Skype was becoming mainstream some of us tried it as an experiment. For example, when I was in South Africa on sabbatical, I had a Skype dinner with a friend back in the UK. It was nice to catch up with her while doing something, but the eating part actually felt quite odd. We had both served up ourselves something simple – a pasta dish – and started eating about the same time. But somehow picking up our knives and forks together did not synchronize and the eating of the meal did not feel natural. The smells, tastes and noises when eating together were lost in translation.

At the end of a tiring day of back-to-back remote work meetings I now look forward to a FaceTime chat with a friend or two with a glass of wine in hand. Of course, it is no substitute for the real thing, but it can be surprisingly relaxing and enjoyable. We make sure we have a good laugh, crack some jokes and try to see the funny side of life. And then its dinner, Netflix, and the 10.00 o'clock news before going to bed.

Another Groundhog Day in these strange times.

Remote Numbers: April 9th 2020

The day before the coronavirus lockdown started in the UK, I had a smart meter fitted in my house. After the engineer had finished, he walked me through all the various functions shown on the digital display; a dashboard of numbers provides all sorts of stats and data about how much electricity and gas you are using and how much they cost per hour, alongside an easy to read traffic light barometer that moves into red bars if you are using a lot of energy (e.g. when boiling a kettle) while rewarding you with green bars when you are being energy efficient. The idea is that you use the various number and bars to change your behaviour and in doing so reduce your energy usage and save money.

I looked at the display a few times but did nothing to change my behaviour to be more energy efficient. Quite the opposite, in fact; I started using more electricity and gas, making more cups of tea, cooking more meals, spending more hours in front of my laptop, TV and doing more washing – as a result of being stuck at home 24/7 now. Best place for the display was to hide it in a drawer.

Meanwhile, like everyone else I have been gripped by numbers that are being delivered each day about coronavirus – but uncomfortably so. The number of new cases and the number of new deaths is on the rise each day. At first 2-3 people dying was considered shocking. Now we are up to nearly a 1000 a day in the UK. It is no longer shocking but expected. We have all

become engrossed by the graphs the scientists generate each day to help the lay person understand what the numbers mean with respect to where we are in the quest to flatten the curve'. They project how steep the curve is each day relative to day zero. The colour coded ones show where the UK is relative to other countries we might care about. I catch myself comparing how we are doing against the US or Italy – thinking we are better off or not doing as bad. Why are we being shown this as if it was a competition? To make us feel better? Comparative graphs are a mechanism that is commonly used in behavioural change; known as social norms. By seeing how well you are doing relative to others (it could be a peer, a family, a neighbouring city or a country) you can feel good if you are below the others or worry if you are above – as it indicates loud and clear you are using more or spending more (conversely, if it is exercise, the reverse is true).

There are more and more of these visualizations appearing now, such as Sky's: "Coronavirus: How many people have died in your area? COVID-19 deaths in England mapped". Those who live in remote areas, like Suffolk can sigh a big relief that there are no big blobs near them. Those who live in London or other densely populated areas will notice big blobs splatted over where they live. No wonder so many Londoners flocked to the countryside when they could. That is, before those who live there told them where to go.

For the most part there is little we can do other than worry when looking at these comparative coronavirus graphs. They are fodder, too, for the media and politicians. For example, the headline on one news website: "Singapore Wins Praise For Its COVID-19 Strategy." Today's headline on CNN's website was more in tune with the way science happens; through competing predictions and hypotheses: "New US model predicts much higher Covid-19 death toll in UK. But British Scientists are sceptical." The US team predict nearly 70,000 will die in the UK. The British scientists, on the other hand, predicted only 20,000-30,000 would die in the UK, based on their brand of mathematical modelling. Who do we believe?

It goes without saying that mathematical models need lots of data in order to make accurate predictions. When predicting the weather, a tsunami or an earthquake millions of data points are used. The current pandemic, however, in comparison, has relatively few data points that can be used. It would be hubris not to remember the failure of Google's Flu Trends program, a few years back, when it's developers claimed, based on analyzing people's search terms for flu, they could produce accurate estimates of flu prevalence two weeks earlier than official data. Sadly, it failed to do this for the peak of the 2013 flu season. Then, they had access to big data – masses of it. The current modelers only have access to small data – very little of it. Let's hope all the lockdown restrictions imposed on society at large, that have been put in place in nearly every country in an attempt to stem the rise in the pandemic, based on current predictions and remote numbers, fares better.

We can but hope.

Remote Tracking: April 13th 2020

It is great to see the tech companies coming together to do their bit to help curb coronavirus. Apple and Google have been collaborating on a tracking platform that could help governments worldwide monitor, track and manage the pandemic more effectively. Their

proposed system works by using Bluetooth and encryption keys, that enable data to be collected from phones that have been in close proximity with each other. From this data, it can be inferred who else phone owners have been close to for a set period of time (e.g. the quarantine period of 14 days). Users can also alert health authorities if they have been diagnosed with Covid-19 and conversely, the system can text them if they have detected that their phone, and indirectly themselves, have been in close contact with someone who has been diagnosed with the virus. The term coined for this new form of remote tracking is 'contact tracing' as illustrated by Apple and Google's graphic.

If everyone opted-in to the system and carried their phone around with them all the time, it could prove to be a much more efficient way of letting people know to self-isolate before they unwittingly spread the virus to others. Epidemiologists would also be able to analyse masses more data and be able to develop more accurate predictions. Governments could be better informed about the efficacy of introducing different policies and restrictions about human movement. It seems a win-win. However, it requires everyone buying into the philosophy and the practice; accepting them as the best way to stop global spreading of the virus. There may be some resistance when it comes to privacy concerns. But such worries need to be weighed up against the potential gains of having a pervasive tracking system in place whose sole objective is for the greater public good. One way is to reassure the public.

Much thought has gone into how to avoid unnecessary data collection; Google and Apple's proposed method of contact tracing is limited in what it tracks and how the data it collects is stored. Compared with GPS that tracks people's physical location, their proposed use of Bluetooth technology is to only pick up signals of mobile phones that are nearby, sampled every 5 minutes. Hence, the data collected won't know that you were on a bus or in the supermarket at a certain time. It will only know you were close to a person who has just been diagnosed with COVID-19. This is an important point to be really clear about – as to how much of what someone is doing is actually being tracked. It also helps if the data being collected is encrypted to address privacy concerns.

To enable such a tracking system to have widespread uptake, governments can either be authoritarian and imposing (as is the case in several countries in Asia) or democratic and encouraging – through educating, persuading, incentivising and nudging people – to opt-in. However, this takes time; during which dissenting voices in the press and social media together with conspiracy theories may take hold and increase a groundswell of worry. To overcome scaremongering and anxiety, requires open debate about what is acceptable and what is not, and how this can change over time and in different cultures and circumstances. Consider CCTV: it is now widely accepted in many countries as a technological deterrent against crime and yet when it first became mainstream in some countries like the UK and Germany, many people were up in arms, not least the Snoopers Charter. Since, however, public opinion has changed. Police authorities found the cameras to be very useful in helping in their investigations and through acting as a deterrent. Nowadays, cameras of every shape and size have become the order of the day, from webcams worn by front line workers to massive multiplex CCTV security set-ups in shopping malls.

Part of my research agenda is to investigate public opinion and sentiment about 'creepy data'. We carry out studies to see which technologies people find acceptable and which makes them

uncomfortable, compromised or feel threatened. In the early days of mobile phones, I worked on a project called Primma (<https://www.open.ac.uk/blogs/primma/>) which was concerned with investigating how to enable people to manage the privacy of their own mobile devices within a framework of acceptable policies. One of our user studies, called Contravision, explored public reactions to a fictitious future technology called DietMon. The proposed tech enabled people, who seriously need to lose weight, to be able to track their calorie consumption by providing them with information on their phones about the amount of calories in the food that they were contemplating eating. A chip was also embedded in their arm that sent data about their physiological states to their GP. Participants were shown either negative or positive videos of how people managed their everyday lives when using such monitoring tech. Their reactions were mixed; some people were grossed out, others saw the potential benefits of the system. Importantly, it resulted in an open debate where a diversity of different perspectives was explored – in sharp contrast with the scaremongering that the media often present to the public. In the end, many different opinions and concerns were voiced.

In another study we conducted (see <https://quantifiedtoilets.com/>) that investigated people's concerns with the use of tracking in public, one person said, "Privacy is important. But I would like to know if I was sick and this is a good way to do it." – this sentiment is at the heart of the current contact tracing dilemma.

Closing Words

My next blog is called 'remote nurturing' where I expel the virtues of how we can capitalize on all the latest crazes where we use the internet to promote being social and feeling human, from pub quizzes, making bread, performing street concerts to growing vegetables. Now that some of the lockdown restrictions are beginning to ease throughout the world we can begin to establish a new normal – helping each other out while we gradually discover what it means to be together again – all be it at an indefinite social distance. Many thanks to Johannes Schöning for editing the blog entries for this article.