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The Covid-19 Contact Tracing App In England and 'Experimental Proportionality'

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Introduction

Data-driven approaches to tackling the coronavirus pandemic are proliferating, and are being refined and specialised over time.[1] Of these approaches, smartphone contact tracing apps have been badged as crucial to the 'test, track and trace' public health strategies that could bring to an end the public policy of 'lockdown', 'lockout' and 'social distancing', themselves constituting inferences with human rights.[2] These apps have been adopted by a number of national governments, proving to be one of the most contentious data-driven responses to the pandemic. Internationally, there has been considerable debate around their operational effectiveness, and whether 'centralised' or 'decentralised' systems are most 'privacy-preserving' from a data protection perspective. Initially pursuing a bespoke 'centralised' approach, on 18th June 2020 England's National Health Service (NHS) performed something of a *volte-face*, announcing that, despite continuing concerns about the distance-measuring functionality of the decentralised model promoted by Google and Apple, 'the focus of work will shift from the current app design and to work instead with Google and Apple to understand how using their solution can meet the specific needs of the public.'[3] Arguably, this was an example of self-regulation and policy monitoring that ultimately aligns well with our discussion here.

In this analysis, we review the history of the NHS's contact tracing app and the differences of opinion over so-called 'centralised' and 'decentralised' technical approaches. The focus, in the discourse on such apps, on data protection concerns has drawn attention away from more expansive human rights considerations, and we argue that human rights law should guide our assessment of the legal implications of a decision to deploy a contact tracing app. Acknowledging the uncertain situation presented by the coronavirus pandemic, we demonstrate that, combined with a robust and rolling oversight function, a model of 'experimental' proportionality review could assist in upholding a fair balance between the rights of the individual and the interests of the community in situations of uncertainty and crisis.

In relation to technological innovations deployed for public purposes, it is often difficult to determine immediately the impact on rights and the benefits for society. 'Experimental proportionality' proposes that, subject to a requisite connection to a legitimate aim, and a reasonable belief that there is no excessive impact on human rights, an assumption of proportionate interference with qualified rights would apply, provided that a robust and rolling review and oversight function is in place.

The NHS contact tracing app

[1] See the Centre for Data Ethics and Innovation Covid-19 repository, which is a database for novel use-cases of artificial intelligence and data specifically being used to counter and mitigate the effects of COVID-19 around the world.

[2] Joint Committee on Human Rights 'Human Rights and the Government's Response to Covd-19: Digital Contact Tracing' Third Report of Session 2019-21, 7 May 2020 HC343, para 18.

[3] Department of Health and Social Care, 'Next phase of NHS coronavirus (COVID-19) app announced' 18 June 2020.

Prior to late June 2020, the NHS had been developing its own app, described as automating the process of contact tracing[4] (where at-risk contacts of an infected person are traced and advised to isolate) as a complement to manual contact tracing. This app uses Bluetooth signals and device IDs to log the distance between the user's phone and other nearby phones. If another user becomes ill with coronavirus and notifies the app, the system calculates a risk-score for the interaction based on signal strength (as a proxy for distance), duration of encounter and an infectiousness estimate. A risk-score over a certain threshold will trigger an alert giving the user relevant public heath advice. The initial NHS app used a so-called 'centralised' approach; pseudonymised data relating to the device ID, encounters with other phones, and virus symptoms would be routinely uploaded to an NHS database in order to generate notifications. In contrast, Apple, Google and an academic consortium (DP-3T[5]) promoted a 'decentralised' approach whereby the server stores only the device IDs of users who have tested positive for the virus. The user's phone regularly queries this database, and informs the user of any relevant contact with such devices. Around the time of writing, and despite the signal change in policy to pursuing a 'decentralised' tool, the NHSX app was, however, still only being described by HM Government as a supplement to the human contact tracing system, with the date of national roll-out still unknown.

Data protection discourse

The public discourse surrounding the model for England's contact tracing app has, to date, oriented largely around data protection law, in particular on questions of effective anonymisation, collection and transfer of personal data, and the debate over 'centralised' versus 'de-centralised' technical approaches. The Information Commissioner's data protection 'expectations' in respect of contact tracing apps focus upon transparency in respect of the data processing, and data minimisation and data security requirements. The ICO's recommendations have not gone as far as backing any particular technical model, stating that 'information should remain on the user's device as far as is reasonably practicable', and noting that 'Backend infrastructure should only collect that which is strictly necessary in the context of the functions it provides'.[6] The DP-3T consortium meanwhile argued that their decentralised approach 'better protects the privacy of individuals' and mitigates against function-creep due to the minimisation of the amount of data held centrally.[7] This is due to concerns around information flows to state bodies, and associated private sector contractors, and stems from an underlying view that it is more 'privacy-preserving' for personal data to be withheld from the state. Concerns around function-creep are understandable and legitimate when set against data centralisation developments in other jurisdictions, including the planned morphing of a virus-tracking app into a

[4] Matthew Gould and Geraint Lewis, 'Digital contact tracing: protecting the NHS and saving lives', *NHSX*, 24 April 2020.

[5] Decentralised Privacy-Preserving Proximity Tracing Project.

[6] Information Commissioner's Office, 'COVID-19 contact tracing: data protection expectations on app development' 4 May 2020.

[7] DP-3T Model DPIA v.01 01.05.2020.

permanent health tracking system,[8] or into a 'coronavirus-immunity registry' combining virus and antibody test data, and contact tracing, verified using facial recognition.[9]

The UK Government points to the existence of safeguards in the Data Protection Act 2018 (DPA) (and retained EU law in the form of the GDPR[10]) in its view that 'existing legislation provides the necessary powers, duties and protections' to govern the NHS app.[11] The Parliamentary Joint Committee on Human Rights (JCHR), by contrast, claims that it is 'not possible to maintain the case that the current patchwork of protections is adequate to protect privacy.' The JCHR fears that, provided an individual consents, 'there are few restrictions on data collection and use beyond basic data principles, which require data is only processed for the specified purpose (the principle of purpose limitation)… [while] the DPA does not require any particular purpose… [so] Government could decide to use a wide or vague purpose when gaining consent for the app and even change that purpose for future users of the app.'[12] In essence, the lack of a statutory requirement for truly distinct specificity in the stated purpose for the collection of data is a weakness of the DPA regime. As the Court of Appeal held in *Bridges* (in the context of facial recognition), the more intrusive the act complained of, the more specific and precise must be the law to justify it. In this case, data protection law was too vague and imprecise to determine when and how the technology would be used.[13]

We would argue therefore that focusing purely on data protection law in relation to the decision to deploy a contact tracing app is too narrow an approach. A human rights analysis is vital, in respect of what we argue is a natural or logical hierarchy of relevant 'privacy' laws, in the fuller context of fundamental rights overall. Respecting core human rights found in the ECHR is a priority over meeting less crucial, but still important, data protection principles. There are two reasons for this: firstly, the right to life must be a factor in weighing the lawfulness of the roll-out of an app, or its mode of operation; and secondly, because data protection rights are only, after all, a sub-set of privacy rights. As the Information Commissioner acknowledges in her guidance, determining the fairness and lawfulness of the *purpose* of the app's data processing is dependent upon having met the necessity and proportionality standards required by the ECHR human rights framework.[14] This latter point reflects the tendency of the English courts to make consideration of data protection secondary to Article 8 claims – particularly now that the Charter of Fundamental Rights of the European Union (2012) has been excised from the UK privacy law framework[15] - so that if

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[8] Helen Davidson, 'Chinese city plans to turn coronavirus app into permanent health tracker' *The Guardian,* 26 May 2020.

[9] Thomas Brewster 'Facial Recognition Firms Pitch Covid-19 'Immunity Passports' For America And Britain' *Forbes*, 20 May 2020.

[10] General Data Protection Regulation (EU) 2016/679.

[11] Letter from Rt Hon Matt Hancock MP, Secretary of State for Health and Social Care, to the Rt Hon Harriet Harman MP regarding legislation for contact tracing for Covid-19, dated 21 May 2020.

[12] Letter (and table) from Rt Hon Harriet Harman to Rt Hon Matt Hancock, Secretary of State for Health and Social Care, regarding digital contact tracing protections, dated 29 May 2020.

[13] *R (Bridges) v Chief Constable of South Wales* [2020] EWCA Civ 1058.

[14] Information Commissioner's Office,'COVID-19 contact tracing: data protection expectations on app development' 4 May 2020, page 3.

[15] Article 52(3) CFREU explains that rights in that instrument, including those to private life (Art. 7 CFREU) and to data protection (Art. 8 CFREU), 'correspond' to ECHR rights; and this entails Article 8 ECHR, in the context of our discussion.

interference with Article 8 rights are held to be necessary, proportionate and in accordance with law, this will satisfy the data protection law requirements of lawfulness and fairness.[16] Furthermore, and from a more normative perspective, we agree in any event with Smuha's position that human rights principles can 'underlie, guide and fortify a governance framework' for the use of new technologies, provided they are bolstered by robust enforcement mechanisms.[17]

A human rights analysis

It is well understood that the mere storing of data relating to the private life of an individual can amount to an Article 8 interference by a public body retaining that data.[18] However, the assessment as to whether such an interference with fundamental rights is justified requires identification of relevant (and potentially competing) fundamental rights (including the right to life, in the COVID-19 context), and the effective contribution this data-based intervention might make to the public policy aim. We explore the required proportionality analysis in more detail below. Furthermore, there are potential issues of discrimination in the actual efficacy of the sort of app under consideration here, as socio-economic and demographic disparities have been said to predict higher (and lower) rates of uptake of a tracing app, resulting in differing degrees of protection afforded by the app to different communities[19].

As a starting point for assessing the lawfulness of any contact-tracing app used in England and Wales, 'lawfulness' in ECHR terms requires that the law be accessible and foreseeable as regards the scope and application of measures[20], and taking into account minimum safeguards against risk of abuse.[21] At the time of writing, the Government has yet to publish a detailed human rights-based assessment of the contact tracing app. One reason for this may be that it is

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[16] The High Court in *R (Open Rights Group) v Secretary of State for the Home Department* [2019] EWHC 2562 (Admin) at 36 observed that 'limitations which may lawfully be placed on the right to protection of personal data under EU law correspond to those tolerated in relation to Article 8 ECHR'; but this case was decided prior to the final removal of the effect of the CFREU in UK law after 31st December 2020, following the combined effect of section 5 of the European Union (Withdrawal) Act 2018 coming into force, and the transitional arrangements between the EU and the UK, post-Brexit.

[17] Nathalie A. Smuha (2020) 'Beyond a Human Rights-Based Approach to AI Governance: Promise, Pitfalls, Plea' *Philosophy and Technology*.

[18] *S v United Kingdom* (2009) 48 EHRR 50.

[19] Ada Lovelace Institute, 'Exit through the app store?' Rapid Evidence Review, 20 April 2020 at 31.

[20] While there is no specific statute or statutory instrument which has been created to specifically underpin the NHSX contact-tracing app for England and Wales, NHSX have been acting on legal bases as provided in the privacy notice for the app. By August 2020, the privacy notice for the second pilot of the NHSX app, using the Google/Apple collaboration software, was available online (NHS Test and Trace App (early adopted trial, August 2020): privacy notice, 13 August 2020. This privacy notice provides the following legal bases for the data processing within the operation of the app, drawing on the EU General Data Protection Regulation (the GDPR is now part of 'retained EU law' for the UK) and the Data Protection Act 2018:

"GDPR Article 6(1)(e) – the processing is necessary for the performance of its official tasks carried out in the public interest in providing and managing a health service… GDPR Article 9(2)(h) – the processing is necessary for medical diagnosis, the provision of health treatment and management of a health and social care system… GDPR Article 9(2)(i) – the processing is necessary for reasons of public interest in the area of public health… DPA 2018 – Schedule 1, Part 1, Section 2(2)(f) – the management of health care systems or services… DPA 2018 – Schedule 1, Part 1, Section 3 – public health purposes…"

[21] *S v United Kingdom* (2008) 48 EHRR 50.

hard to do with any confidence. Critics of the centralised approach argued that although a centralised NHS app may have increased epidemiological utility, it would involve a greater interference with individual rights. Therefore 'the uncertainty as to the efficiency, uptake and efficacy of such a centralised system would have to be addressed with sufficient evidence before its introduction could be justified.'[22] However, a failure to develop a contact tracing app of any kind at all could be argued to be an *inaction* or policy that breached ECHR rights, given the existence of a threat to life that UK authorities ought to know[23], in Article 2 ECHR terms, that would result from easing 'lockdown' or 'lockout' without such an app in place. There is doubt, however, as to whether Article 2 obliges *particular* measures to be taken to prevent infection. As the Strasbourg Court stated in *Shelley*: 'Matters of health care policy, in particular as regards general preventative measures, are in principle within the margin of appreciation of the domestic authorities who are best placed to assess priorities, use of resources and social needs.'[24]

The efficacy and rights-impact of the deployment of a contact tracing app are contested issues; but we are living through a public health emergency where outcomes are uncertain, and the app is tied inexorably to the Government's strategic public health objectives which have been criticised for lack of clarity, including as to where an app fits in and whether it will be effective in achieving the public health objective(s).[25]

Is Article 8 engaged?

In terms of the impact on rights as a data sharing tool, we would argue that Article 8 ECHR would be likely be engaged by a centralised app where identifiable or pseudonymised data of both user and contacts are collected by the NHS as part of the public health response, particularly if then linked to the wider 'manual' track-and-trace programme. Admittedly, in *Immigration Tracing*[26], the Court of Appeal held that NHS data on individual debtors who owed fees to hospital departments were not protected by a 'reasonable expectation of privacy'[27], due to the existence of guidance that informed patients that the data would be transferred to the Home Office for immigration control purposes. We would argue that this reasoning in *Immigration Tracing*, in relation to what constitutes a 'reasonable expectation of privacy', is ultimately unlikely to be followed in respect of a centralised contact tracing app. The private nature of the data processed via the app, which may include medical symptoms, test results, data on the physical proximity to other users, and the user's network of smartphone contacts, and the resulting

[22] Matthew Ryder, Edward Craven, Gayatri Sarathy and Ravi Naik, 'Covid-19 and tech responses: Legal opinion' 30 April 2020, para 64.

[23] See *Osman v UK* (1998) *(87/1997/871/1083*) at 116. See also *Brincat and Others v Malta* (2014) (Application Nos. 60908/11, 62110/11, 62129/11, 62312/11 and 62338/11) para 80. Furthermore, a positive obligation to act in the face of a 'present and continuing' risk to life was confirmed by Dyson LJ in *R (Rabone) v Pennine Care NHS Foundation Trust* [2012] UKSC 2 at 39; although the obligation is not without practicable limit. As Dyson LJ also explained in *Rabone* (at 43), the "standard demanded for the performance of the operational duty is one of reasonableness".

[24] *Shelley v UK* (2008) 46 EHRR SE16.

[25] Matthew Ryder, Edward Craven, Gayatri Sarathy and Ravi Naik, 'Covid-19 and tech responses: Legal opinion' 30 April 2020, para 60.

[26] See *R (W, X, Y and Z) v Secretary of State for Health* [2015] EWCA Civ 1034 at 44-45.

[27] Kerr LJ has explained however, in *JR38* [2015] UKSC 42 at 55-59, and with reference to a holistic view of the relevant jurisprudence, that the 'reasonable expectation of privacy' test is not solely determinative of whether Article 8 ECHR is engaged in data sharing contexts. This was acknowledged by the Court of Appeal, in fact, in *Immigration Tracing*, at 31.

interference with Article 8, should not be seen as negated (and so denying a 'reasonable expectation of privacy') by informing the user that the data may be disclosed from the app the NHS bodies. Data gleaned from the app would be of a qualitatively different order to information about personal debts for NHS care, and the residential addresses, for example, of the relevant debtors. Instead, user notification as to the use of data from the app will be a relevant consideration in assessing whether the interference is justified. It is this second stage – in judging whether the interference is in accordance with law, necessary and proportionate – which creates the most uncertainties.

In accordance with law

The creation by a centralised app of an arguably unprecedented bulk dataset of sensitive personal data and associated meta-data (assuming large population coverage), without a fresh legislative basis, warrants vigorous scrutiny (and perhaps, in time, challenge).[28] The capability to obtain and then access bulk personal datasets needed validating primary legislation in the context of the intelligence agencies.[29] And yet in the context of the tracing app, HM Government considers that 'existing legislation provides the necessary powers, duties and protections.'[30] Although the centralised app was shaped by the principle of consent, with members of the public agreeing to the app's installation, of central concern is the lack of legal ringfencing around subsequent usage of the dataset produced by the app, raising questions of foreseeability as articulated by Lord Sumption in *R(P)*:

> 'An excessively broad discretion in the application of a measure infringing the right to privacy is likely to amount to an exercise of power unconstrained by law. It cannot therefore be in accordance with law unless there are sufficient safeguards, exercised on known legal principles, against the arbitrary exercise of that discretion, so as to make its application reasonably foreseeable.'[31]

When considering the regulation of secret surveillance, the Strasbourg court in *Zakharov* consolidated '…minimum safeguards that should be set out in law in order to avoid abuses of power: the nature of offences which may give rise to an interception order; a definition of the categories of people liable to have their telephones tapped; a limit on the duration of telephone tapping; the procedure to be followed for examining, using and storing the data obtained; the precautions to be taken when communicating the data to other parties; and the circumstances in which recordings may or must be erased or destroyed...'[32] Turning to our context of population-wide data collected

[28] It is notable that the Norwegian Data Protection Authority has ruled that the Norwegian app (which uses location data in addition to Bluetooth signals) represents a disproportionate privacy intrusion in light of the low spread of infection. See Leo Kelion, 'Coronavirus: Contact-tracing apps face further hitches', BBC News, 15th June 2020.

[29] Investigatory Powers Act 2016 c25.

[30] Letter from Rt Hon Matt Hancock MP, Secretary of State for Health and Social Care, to the Rt Hon Harriet Harman MP regarding legislation for contact tracing for Covid-19, dated 21 May 2020.

[31] *R(P) v Secretary of State for Justice* [2019] UKSC 3, para 31.

[32] *Zakharov v Russia* (2015) (47143/06) , at 231

by the state via an app, a novel statute structured to give a specific legal basis to the operation of the NHS tracing app could have used *Zakharov* categories to shape the safeguards in a more transparent and rigorous way.[33]

Necessity and proportionality

The question of whether an NHS app is 'necessary' (when compared for instance to an arguably less intrusive 'decentralised' approach) to achieve a legitimate public health aim has been undermined by the Government's changeable messaging – from emphasising a citizen's 'duty' to download the (then centralised) app as a crucial part of lifting the lockdown at the beginning of May,[34] to describing the app by late May 2020 as merely supporting the human contact tracing system[35], then delaying any app to a date to be determined. Furthermore, the Government has yet to accept concerns about the potential for abuse outside the public health sphere, for instance should employers or insurers require use of the app for access to jobs or services,[36] thus transforming the app from a voluntary process to a *de facto* mandatory one.[37] (This position contrasts starkly with Australia's Privacy Amendment (Public Health Contact Information) Act 2020[38] which provides, *inter alia*, that no one can be forced to download or use COVIDSafe (Australia's contact tracing app) or upload their data.)

In previous research, we observed that some data technology 'tools are so new that the resource benefits have yet to be realised, and it may be too early to judge the benefits and harms with ease.' [39] It is thus difficult to come to any conclusive assessment of whether or not a decision to use a particular form of app is 'necessary' i.e. the least intrusive, and whether the use of the app results in a 'fair balance' between the rights of an individual and the benefits for wider society…and thus whether use of the app achieves a 'better' outcome than other methods. We argue in the following section that our concept of 'experimental proportionality' would be a valuable contribution to the ongoing oversight of contact tracing apps.

'Experimental proportionality'

[33] This conclusion is arguably supported by the findings in *R (Bridges) v Chief Constable of South Wales* [2020] EWCA Civ 1058.

[34] John Johnston 'Matt Hancock says public has a 'duty' to download coronavirus contact tracing app' *PoliticsHome*, 5 May 2020.

[35] Dan Sabbagh, Frances Perraudin, Heather Stewart and Peter Walker, 'Plans for contact-tracing in doubt as app not ready until June' *The Guardian*, 20th May 2020.

[36] Ada Lovelace Institute, *'Exit Through the App Store?' Rapid Evidence Review*, 20 April 2020 at 33.

[37] The decisions in *Avilkina v Russia* ECHR 171 (2013) and *PT v Moldova* 143 ECHR (2020) illustrate violations of Article 8 in respect of discriminatory and disproportionate disclosure of medical information of Jehovah's Witnesses, and excessive and disproportionate disclosure of medical information in an exemption certificate required for employment applications, respectively.

[38] No. 44, 2020.

[39] Marion Oswald, Jamie Grace, Sheena Urwin & Geoffrey C. Barnes (2018) Algorithmic risk assessment policing models: lessons from the Durham HART model and 'Experimental' proportionality, Information & Communications Technology Law, 27:2, 223-250, 242.

Ramshaw has observed that there are a range of different types of proportionality-based review. He highlights six types, including proportionality at common law.[40] Craig has explained that '…proportionality-type review existed in the UK from the seventeenth century onwards', and 'semantic differences' in the common law on proportionality have included a variety of terms, including 'proportionable, proportionability, disproportion and proportionate'.[41] As a result, we feel we can suggest a model of 'experimental proportionality' without trying first to fully establish we have a doctrinal basis to do so. Instead, we will explain how such a development of the UK proportionality doctrine, at least in the context of Article 8 ECHR, might help to balance the need for scrutiny of unheralded uses of personal data, and the need to allow for innovation to protect life and health.

The concept of 'experimental proportionality' was first described in research in 2018[42], and in a way that built on Rivers' idea of the 'presumption of proportionality'[43]. Designed as an alternative to high-level ethical principles currently *en vogue*, this model has the dual advantages of permitting the use of unproven data technologies in the public sector in order that benefits and harms can be fully explored, yet giving the public confidence that such use would be controlled and time-limited and the proportionality subject to a further (non-presumptive) review on a stipulated future date. The value of an experimental proportionality-based approach to regulating emerging tech issues is therefore that the approach is iterative; yet the model requires the public sector body initially to demonstrate a baseline connection to a legitimate aim, that the outcomes and benefits (even if these are as yet theoretical or only foreseen due to the novelty of the technology and/or the context) are rationally connected to that aim and, based on the knowledge available, a reasonable belief that there is not an excessive cost to human rights. This approach recognises that innovations sometimes must be piloted i*n order* to allow for the detailed application of legal tests used to conduct a proportionality analysis.

At this point in our discussion we should explain our definition of the contribution that 'experimental proportionality' might make. As a starting point, we agree with Rivers, in his explanation of the presumption of proportionality, in that the first duty of showing a proportionate approach, when challenged to do so, is establishing that 'the limitation of rights was the direct or indirect effect of pursuing a legitimate public aim or policy.'[44] Next, we would suggest that in judging the degree to which a 'public aim or policy' was legitimate, it should be determined whether the nature of the public aim or policy is one that is a) innovative, in response to an emerging, novel problem that has been

[40] These six types are: 1. 'normal' two-stage EU proportionality; 2. 'normal' three-stage EU proportionality; 3. EU manifest disproportionality; 4. 'normal' four-stage ECHR proportionality; 5. ECHR manifestly without reasonable foundation proportionality; and 6. proportionality at common law. See Adam Ramshaw (2019) 'The case for replicable structured full proportionality analysis in all cases concerning fundamental rights', *Legal Studies* 39, 120–142, 121.

[41] Paul Craig (2020) 'Proportionality and Constitutional Review', *University of Oxford Human Rights Hub Journal* Vol 3(2) 87-95, 88.

[42] Marion Oswald, Jamie Grace, Sheena Urwin & Geoffrey C. Barnes (2018) Algorithmic risk assessment policing models: lessons from the Durham HART model and 'Experimental' proportionality, Information & Communications Technology Law, 27:2, 223-250, 242.

[43] Julian Rivers (2014) 'The Presumption of Proportionality' 77(3) MLR 409–433, 414.

[44] Julian Rivers (2014) 'The Presumption of Proportionality' 77(3) MLR 409–433, 432.

uncovered, or b) represents the application of technology in a novel setting or manner to tackle a problem of sufficient importance to justify the interference with a fundamental right. In relation to how the now-typical four-part proportionality test would work, under Article 8 ECHR, we would adapt the test[45] by adding a fifth stage to recognise elements of 'experimental proportionality', as we put it below (and with key language in added emphasis in bold text):

- '(a) is the legislative object **sufficiently important** to justify limiting a fundamental right?;
- (b) are the measures which have been designed to meet it **rationally connected** to it?
- (c) are they **no more than necessary** to accomplish it?
- And (d) do they strike **a fair balance** between the rights of the individual and the interests of the community?"
- And now… *e) in determining that 'fair balance' over time, will the measures put in place be **meaningfully and periodically reviewed** (if those measures are experimental, novel or original in their scale or application), and are there **sufficiently dedicated mechanisms** in place to ensure they will be?*

Constitutional discourse in this country in response to the pandemic has already demanded a rolling review of the necessity of human rights intrusions. For example, the Joint Committee on Human Rights have stated that the requisite three-weekly review of police powers created through Health Protection Regulations is essential, not only under the Public Health (Control of Disease) Act 1984, but because the Health Secretary was required 'under human rights principles to immediately discontinue any restriction which is no longer necessary'[46].

Part of the case for a statutory basis, particularly for a 'centralised' tracing app/immunity certificate programme, is that it could be used to add valuable scrutiny safeguards, as primary legislation could set in place a statutory rolling review mechanism, quite possibly by an independent regulator established for the purpose (already seen in the Investigatory Powers Act by the establishment of the Investigatory Powers Commissioner). The Joint Committee on Human Rights further argue that the app's contribution to the public health response 'must be demonstrated and improved at regular intervals for the collection of the data to be reasonable'[47]and has called for the creation of a Digital Contact Tracing Human Rights Commissioner with powers of entry and inspection and to review complaints.[48] ECHR case law in the context of surveillance has established the importance to the proportionality assessment of

[45] Here we work with the language of the four-part proportionality test set out by Lord Wilson in *R. (on the application of Quila) v Secretary of State for the Home Department* [2011] UKSC 45 at 45. Lord Wilson was citing the fourth limb of the test as suggested by Lord Bingham in *Huang v Secretary of State for the Home Department* [2007] 2 AC 167 at 19.

[46] Joint Committee on Human Rights Chair's Briefing Paper, 'The Health Protection (Coronavirus, Restrictions) (England) Regulations 2020 and the Lockdown Restrictions, 8 April 2020, para 4.

[47] Joint Committee on Human Rights 'Human Rights and the Government's Response to Covd-19: Digital Contact Tracing' Third Report of Session 2019-21, 7 May 2020 HC343, para 18.

[48] Letter (and draft Bill) from Rt Hon Harriet Harman MP to Rt Hon Matt Hancock MP, Secretary of State for Health and Social Care, regarding legislation for contact tracing for Covid-19, dated 7 May.

robust safeguards and independent oversight. [49] In the context of the mass rollout of digital contact tracing, a similar form of oversight process should become both a legal and political necessity.

Discussion and conclusions

From a technical perspective, the centralised NHS contact tracing app has turned out to be somewhat of a damp squib. Despite this, principled consideration of the app's implications has demonstrated that human rights analyses are an important way of framing the public discourse on the issue. Arguably, the UK Government's position (as at date of writing) on there being little need for dedicated legislation on tracing apps does not stand scrutiny when faced with human rights concerns, is inconsistent with international comparators and even some existing UK Government activity. We would propose, however, that the recognised proportionality-based approach to determining where the 'fair balance' lies with respect to a set of large-scale, population-wide and individual-level interferences with Article 8 ECHR rights is best augmented with a pragmatic recognition of a need for the application of 'experimental proportionality'. Furthermore, one fair criticism of a human rights-based method of regulating contact tracing apps is that there is comparatively little in the way of granular regulatory architecture, certainly when compared to the data protection assemblage. We therefore believe that a principle of 'experimental proportionality' should be combined with a proactive oversight process, and would propose a new and more specialised regulatory body - which is iterative, independent and investigative in its work in line with the 'experimental proportionality' model – for oversight of experimental technology created for public health and other unprecedented national emergencies. This view, in favour of creating new specialist regulators around innovative data practices has been reinvigorated by the Joint Committee on Human Rights in its proposal for a Digital Contact Tracing Human Rights Commissioner.[50] The adversarial tone of the debate over contact tracing apps, together with the potential for significant rights impacts, would also support the argument for the creation of a specialist oversight function for contact tracing and other Covid-19 data-driven technology. This regulatory body could proactively assess the human rights impacts in a transparent and rigorous way in parallel with development, trial and roll-out activity,[51] while leaving judicial review avenues open and maintaining the option for later complaint to an empowered statutory regulator (such as the ICO).

The current coronavirus pandemic has highlighted certain fragilities in our public health apparatus when it comes to complying with duties to protect life. It is now possible to see how devastating the next pandemic may be when it comes, and the extent to which public confidence in government policy positions can be a matter of life and death for many thousands. A dedicated and specialist oversight body could build trust in technological interventions, provided grounded in a human rights analysis from the start. In working to a model of 'experimental

[49] Liberty & Ors v UK, Application No 58243/00 (ECHR, 1 Jul 2008); C-311/18 -Facebook Ireland and Schrems (16 July 2020).

[50] Letter (and draft Bill) from the Rt Hon Harriet Harman MP to Rt Hon Matt Hancock MP, 7 May 2020 #HC 265.

[51] Lilian Edwards et al. have proposed a Coronavirus Safeguarding Commissioner; see Edwards, Lilian, Michael Veale, Orla Lynskey, Rachel Coldicutt, Nóra N. Loideain, Frederike Kaltheuner, Marion Oswald, et al. 2020. "The Coronavirus (Safeguards) Bill 2020: Proposed Protections for Digital Interventions and in Relation to Immunity Certificates." LawArXiv. April 13.

proportionality', with a new lens of periodic review through a rigorous and dedicated monitoring process, the required 'fair balance' between privacy and protective pragmatism could be maintained.