

## Annex 5Q: A/B test example: Two Factor Authentication in UC

DWP conducted an A/B test in November 2019.<sup>1</sup> Summarising the test, officials said:<sup>2</sup> (coloured highlights added)

### Two factor authentication analysis

Two factor authentication is being introduced to replace the Personal Security Number (PSN).

This will mean people will need to register a mobile phone that will be used to verify who they are at key points in Universal Credit e.g. some change of circumstances, logging in etc.

The aims of its introduction are

- improve security of the a claimant's account
- Reduce operational cost of the PSN appointment.

...

The registering of a claimant's mobile phone for two factor authentication is being added into the new claim process.

There is a concern that the extra steps will

1. Prevent people creating their UC account.
2. Prevent people from signing in.
3. Result in additional operational cost due to extra contact from those struggling to register their mobile phone and failing to sign in.

...

This test is a digital experiment by DWP, conducted in the middle of a pandemic, experimenting upon 380,000 people. The test did not, however, take into account other factors that may have caused users to have problems with two factor authentication (2FA).

Changing the UC claim process is something which can and will have a significant number of consequences.

**DWP experimented changing the flow of questions which added a dependency upon a mobile phone signal (ie receiving a text) to sign up to UC (rather than just internet access), and told none of their frontline staff, support organisations, or claimants, that the experiment was in progress.**

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<sup>1</sup> We understand this covered part of the 'lockdown 2' period of COVID-19.

<sup>2</sup> [https://www.whatdotheyknow.com/request/ab\\_testing\\_results\\_from\\_universa](https://www.whatdotheyknow.com/request/ab_testing_results_from_universa) The original document from DWP was an .eml file mistakenly uploaded as a .doc file. We have decrypted it and made a PDF of the contents of the original document including a link to the original file here:

<https://medconfidential.org/wp-content/uploads/2021/01/2021-01-18-UC-FOI-2FA-analysis.pdf>

We understand anecdotally that it is likely DWP is at least in the process of rolling this out beyond the test (given the secrecy of A/B tests by DWP (the topic of another annex<sup>3</sup>), it is not entirely impossible that those anecdotes are simply A/B test victims).

## Measuring Any Effects on the Takeup of UC

DWP say “DWP would not introduce A/B tests that impacted closure rates”,<sup>4</sup> yet they don't seem too worried about take up of UC,<sup>5</sup> DWP (and HMRC) publish limited data on benefit take up that has been criticised for its inaccuracy.<sup>6</sup>

The first two<sup>7</sup> A/B tests DWP ran both changed things in the signup process, with no contingency plan for the very real case in one of them where an applicant may fall out of the process because of the changes introduced by the test.

Is this evidence of a culture within DWP that it doesn't matter if DWP process is alone causes people to fail to claim UC? A/B testing is a way to

## Obvious Categories of Discrimination

Those who are disproportionately vulnerable are much more likely to rely on support services to access the internet in order to rightfully claim their Universal Credit.

The use of 2FA, even just for some users, adds a new dependence on mobile phone signal during the signup process. We understand that national networks providing internet access within communities *do not know* to what extent their network of venues is served by the UK mobile phone networks. In any case, if a claimant visits any of these venues to use their services to access UC, whether they are able to do so should not be dependent upon the network of the claimant's mobile provider or the local availability of signal.

If a user has to leave, say, a library PC to go outside to receive a text message, the chances of that PC being taken in their absence are not slim – which would mean them having to repeat the login process, going outside to get mobile signal needed to get a new code, and coming back inside hoping that the machine has not been taken by someone else in the interim...

We are not in a position to fully assess the burden on other support services, but since also evidence of problems claimants experience with a) access to the internet (relying on

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<sup>3</sup> <https://medconfidential.org/wp-content/uploads/2021/03/5P-AB-testing-practices.pdf>

<sup>4</sup>

<https://www.whatdotheyknow.com/request/710734/response/1707015/attach/4/FOI2020%2076646.pdf>

<sup>5</sup> The user journey for UC includes pressing the first “start” button to begin the process, even if DWP does not consider a ‘claimant’ until after they have been deemed eligible for a claim.

<sup>6</sup> <https://www.resolutionfoundation.org/comment/boosting-benefit-take-up-is-critical-to-the-success-of-universal-credit-but-we-might-not-be-able-to-measure-whether-its-working/> a

<sup>7</sup> There were no A/B tests conducted prior to those in footnote 2 <https://www.whatdotheyknow.com/request/723544/response/1734863/attach/3/Response%20FOI2021%2008803.pdf>

libraries etc.) b) digital skills c) cost of data d) poor internet service in certain areas,<sup>8</sup> it is clear the explanation from DWP is woefully inadequate.<sup>9</sup>

## Process basis

We do not doubt that, with appropriate effort, all issues can be well considered. But as this experiment was an A/B test about which, by definition, DWP's frontline staff were not told in advance, those staff – and support staff external to DWP – would be unable to properly assist users with problems such as those we describe, *because they had no idea it was happening*. (This would be the case even if those staff have had personal experience of the lack of electromagnetic penetration in their offices, noting staff will have mobile phones too.)

On a purely procedural basis, it is unclear whether this trial was either lawful or just. And any consideration of whether this *could* be a good idea was (and is) undermined by processes and practice within DWP.

We shall cover the wider systemic issues in another Annex.<sup>10</sup>

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<sup>8</sup> Academic work on this topic may be helpful, like Navigating Pandemic Social Security: Benefits, Employment and Crisis Support during COVID-19” funded by ESRC  
[www.distantwelfare.co.uk](http://www.distantwelfare.co.uk)  
[https://9ec499a2-11fd-40f9-999e-efa4a5fbe856.filesusr.com/ugd/e77e1a\\_dcbc771bd95e4664924c9cc0adf062e6.pdf](https://9ec499a2-11fd-40f9-999e-efa4a5fbe856.filesusr.com/ugd/e77e1a_dcbc771bd95e4664924c9cc0adf062e6.pdf)

<sup>9</sup> One response to a draft of this paper said “more the burden on staff at jcps, centres etc. to help clients who are not tech savvy or don't have much literacy, or have other issues (dyscalculus, dyslexia, vision problems) or for older ones may not have a phone, or cope with managing across two devices.”

<sup>10</sup> <https://medconfidential.org/wp-content/uploads/2021/03/5P-AB-testing-practices.pdf>