RESEARCH BRIEFING
Digital Benefits and Disbenefits Project

№5

RESEARCH QUESTIONS

Research aim, research questions and answers to those questions from the Digital Benefits and Disbenefits project

The *Digital Benefits and Disbenefits* project explored e-government technology-generated remote self-service encounters in welfare benefit public services. The aim was to identify and mitigate the harms (negative effects on claimants) arising from digitisation design itself, separate to policy choices (e.g. legislation, regulations) or the inherent nature of digital channels (e.g. availability of devices, internet access, ability to use devices and software). This *Research Briefing №5* describes the project's aim, research questions and the answers to those questions arising from the research, which used two of the UK's most-accessed adult working-age cash-based social protection benefits as case studies: the predominantly online-only Universal Credit (UC) to make and maintain a claim, and Personal Independence Payment (PIP) to submit supporting evidence.

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Introduction

Despite significant interest in the effects on citizens of social protection policy choices, insufficient attention has been given to digital welfare design decisions—independent of policy and regulation—which affect whether digital transformation is more advantageous to the state or claimants. In the UK, the focus is thus on the design choices made in implementing digitised public services first defined by Welfare Reform Act 2012.

Research Aim

The aim of this research is to identify how technology might be used to the advantage of claimants accessing remote digitised social protection payment public services (often commonly referred to as welfare benefits). The digitised systems are predominantly self-service, and accessed remotely. Using a process of Research through Design, the experiences of claimants themselves were investigated to identify how the design of digitisation can introduce harms when the policy is enacted. Prototype digital adaptions intended to counter these adverse effects were developed to further explore and understand the phenomena and establish design knowledge which reflects people's wider ecosystems beyond digital interfaces.

Research Questions

The aim is addressed through answering three research questions. The first is empirical requiring collection of data about citizens' lived experiences. The second is synthesis to generate abstract ideas and concepts about citizens' interactions with digital welfare. The third is a design question, where the insights arising from the first two questions are applied though design.

RQ1 **How do claimants view their interactions with online digitised social protection payment public services?**

Government objectives for digitisation of public services are to increase access and improve efficiency. These are not necessarily aligned with citizens' own goals, and may be contrary to these. Rather than assuming what citizens experience and how digital welfare might be affecting them adversely, the research relies on claimants to articulate their views based on their own lived experiences.

RQ2 **What design features of these are contributing to harms perceived by claimants?**

From the empirical data it is necessary to synthesise abstract ideas and concepts about how the design of digitisation itself contributes to difficulties accessing public services. The issues of relevance are independent from policy and operational matters and instead relate to the digital aspects of the service implementation.

RQ3 **How can citizen-controlled digital tools mitigate identified/perceived harms and improve the digital interactions between government and claimants?**

Building on the outputs of the first two research questions, the development and evaluation of two example digital interventions to produce knowledge about how harms identified can be reduced.

Answering the Research Questions

The aim of this research was addressed by answering the three research questions.

RQ1 **How do claimants view their interactions with online digitised social protection payment public services?**

Claimants are active contributors in a public service delivery perspective where the united capabilities of individual citizens, the wider community and the state need to come together in a timely manner for an individual's life needs. However, there is a mismatch between the implemented digitised services and the needs of claimants. Whilst digitisation has enabled remote any-time use, barriers can be introduced which make it harder to achieve and sustain access. These include how a simplified view of people's lives increases complexity for claimants, transfers effort to citizens and their communities, limits other ways for claimants to interact with the state, and insufficiently recognises the role of claimants' wider ecosystems in delivery of the public services, and where there is an imbalance of power and claimants often feel inferior. Claimant participants articulated many potential negative impacts occurring before, during and after achieving and sustaining access, and which have been gathered together into a Taxonomy of Harms (*Research Briefing №1*) that recognises how some digitisation-related harms are specific to the particular service delivered.

RQ2 **What design features of these are contributing to harms perceived by claimants?**

This research has focused on the digitisation-related negative effects which are perceived by claimants who had already achieved access, based on their own experiences, to the exclusion of other viewpoints. This approach contrasts with deficit models of digital exclusion and intentionally excludes policy matters, to focus on design decisions during policy implementation. Insights from the studies led to the progressive development of 19 design implications (*Research Briefing №2*). These recognise features which provide improved linkages between state-provided systems and claimants' own ecosystems, reflecting how harms perceived by claimants due to digitisation, do not solely arise in the digital interface service delivery touchpoints. This has drawn attention to how choices can be made during implementation, in a form of digital discretion related to design, pointing to the need for greater involvement of HCI researchers and the citizens who will access the services.

RQ3 **How can citizen-controlled digital tools mitigate identified/perceived harms and improve the digital interactions between government and claimants?**

This research has highlighted opportunities for civic technology to complement (rather than replace) state-provided digitised public services, with two demonstration prototypes, each in a different mode: one in-line concurrent with claimant access to UC Online and one fulfilling a non-digitised activity between two state service delivery touchpoints for PIP. These demonstrated ways to reduce some harms but require similar attention to how new harms can be introduced by changes, requiring the insight of existing users. Service delivery ecosystems already contribute to service uptake and state efficiencies, and therefore additional integration, rather than isolation, of non-state actors does not necessarily mean such changes would be detrimental to the state. Better service delivery could also impart improved policy outcomes. Therefore, the thesis argues that factors which reduce barriers between state systems and wider ecosystems, and between activities which are digitised and not, should be considered, to increase the porosity of systems permitting more creative adaption and use of what would become more shared infrastructure, to transform the welfare state for the better.

Limitations and Future Work

The thesis contends firstly that digital welfare needs to embrace a wider viewpoint encompassing people's ecosystems; secondly that discretionary choices being made during design which implements policies can impact negatively on claimants; and thirdly that there is a need for increasing porosity of service boundaries, so as to not constrain interactions with the services unnecessarily, and instead to promote and even to support such ecosystems. The thesis also reflected on obstacles to the acceptance of these proposals and methodological considerations arising from the research, discussing these in relation to previous HCI literature and the research questions.

The data collected and findings were drawn from two Case Study social protection public services in the UK, and thus there is a need to undertake this type of research plan with other digital welfare services and in other jurisdictions. The pandemic effects also mostly excluded the involvement of partner organisations and any form of group-based and in-person methods, which could contribute further evidence to the matters raised.

In the study-specific discussions of the thesis, it was noted the need to further explore the use of scenarios to assist the articulation of harms, to validate the Taxonomy of Harms through its application and use in other contexts, and proposed further trials of HCI HAZOP, particularly involving users of the technological systems which was unable to be undertaken during the research. Several participants involved with the design and evaluation of the prototype digital artefacts were also keen for further development and trials, despite their intention only to be to contribute to creating knowledge. Clearly, there is much involved in taking these forward, including ensuring the sustainability of what might be developed, but there are many opportunities to explore the trust implications, and indeed user experience aspects, which were not fully examined during the timescales of the research. The concept of porosity and how to engage with the state during implementation are much larger issues which this research has seeded, which could be picked up in other research.

Research Briefing №5: Research Questions
This is one of five documents describing outputs from Colin Watson's doctoral human-computer interaction (HCI) research project *Digital Benefits and Disbenefits,* undertaken 2019–2023 at Open Lab, Newcastle University, UK. These research briefings draw on findings, analysis and discussion published in his thesis *Understanding and Reducing the Negative Effects of Digitisation on Claimants' Access to Online Social Protection Services through the Design of Citizen-Controlled Digital Tools*, supervised by Dr Ahmed Kharrufa (Open Lab, Newcastle University) and Professor Ruth McAreavey (Sociology, Newcastle University). Colin Watson qualified for the award Doctor of Philosophy in the School of Computing on 18 March 2024.

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