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Varieties of digitalisation? A comparison of employment services digitalisation in the UK and Australia

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Abstract

This article examines the digitalisation of employment services in the UK and Australia, countries that have been on similar policy trajectories with respect to the development of quasi-markets and increased digitalisation. The article deploys comparative mixed methods comprising surveys of employment service providers and interviews with providers and technology developers in both countries to analyse the extent of, forms and challenges around digitalisation across both countries. The survey data analysis suggested considerable similarities in the UK and Australia regarding the drivers of digitalisation and the tasks which were digitalised. However, the interview data highlighted some differences between the two countries, including the persistence of face-to-face delivery in the UK compared with accelerated digitalisation in Australia. In both countries, there were clear differing motivations between stakeholder communities (policymakers and developers), which providers had to negotiate.

KEYWORDS

Australia-overseas comparisons, digital technology, employment policy, privatisation, social welfare

1 | INTRODUCTION

Public services are increasingly being organised and delivered digitally, with an assumption that in the future, many services—and users' access to them—will be "digital by default"

(Hernandez & Faith, 2022; Schou & Pors, 2019). Within employment services, programmes of digitalisation and the digitalisation of individual aspects of delivery have been occurring in many countries over the last 25 years, although the nature of this varies considerably (Considine et al., 2022).

An initial framework developed by Considine et al. (2022) has usefully begun to describe some possible distinct variations in digitalisation in employment services, notably focusing on Australia. However, there remains little evidence about the specific forms that digitalisation is taking in different contexts, the roles played by different stakeholders in digitalisation and the drivers of, and barriers to, digitalisation. In the context of a rapidly changing policy environment in Australia and other countries (Casey, 2022; Davidson, 2022; Wright et al., 2020), understanding these forms, drivers and consequences of employment service digitalisation in different contexts is essential for scholars, policymakers and practitioners.

The article examines the digitalisation of employment services in the UK and Australia, covering the period of the COVID-19 pandemic (though not intentionally). The UK and Australia have been on relatively similar long-term policy trajectories, being the countries that have most extensively deployed contracting out of employment services (Ball et al., 2023; McGann, 2021). Neo-liberal policy agendas have sought to introduce markets into employment services in many countries, and the digitalisation of parts of delivery has long been observable (Ingold, 2020; Roche & Griffin, 2023). However, little is known at an empirical level about the specific forms that digitalisation is taking in both countries and what is driving it. Has COVID-19 impacted upon digitalisation and, if so, in what specific ways, and with what effects? Are processes of digitalisation resulting in a displacement of frontline advisers, or do they involve changes in, or development of, their roles? What are the consequences of such changes for the evolution of employment services?

The article draws on a comparative mixed method study to address these questions: firstly, a survey of employment service providers in the UK and Australia to obtain a broad picture of the extent of digitalisation in employment services and to identify the tasks for which digital tools were used, and secondly, interviews with 45 employment service providers and technology developers to explore in more detail the drivers, barriers and consequences of digitalisation in both countries.

The survey findings point to considerable similarities, rather than variety, in the UK and Australia in terms of the forms of digitalisation, and the key drivers. However, some differences can be seen in the perceived importance of these to respondents. The interview data highlight more differences between the two countries and point to evolving "varieties of digitalisation". Whilst the Universal Credit system is central to the UK's policy digitalisation path, for contracted service providers, the commissioning requirements from the government were still focused on face-to-face delivery. By contrast, Australia has gone further down the path of centring digitalisation within employment services delivery. Despite variegated paths of marketisation and digitalisation of employment services in the two countries, the analysis demonstrates that the human and relational dimension within this domain of policy delivery is critical. An ongoing challenge for policymakers and practitioners revolves around how to create a personalised digital experience that retains a human connection.

1.1 | Digitalisation in employment services: A review of debates

The extent, nature and consequences of increasingly "digitised" and "digitalised" economies are widely debated (Ekbia & Nardi, 2017). Digitisation involves the transformation of information from a physical to a digital format, whilst digitalisation involves changing processes or ways of working to incorporate new technology. (Bloomberg, 2018). Within scholarship on digitalisation, debate has focused a number of specific areas. Firstly, outcome-focused

studies centred on examining the implications of digitalisation. These fall into two distinct groups: technology optimists and technology pessimists. The former are largely concentrated in a space within policy-oriented literature and highlight the benefits of the digitalisation of welfare services in terms of flexibility and improved access for clients, and efficiency and consistency in delivery (for example, Department of Jobs and Small Business, 2018). The latter, by contrast, have pointed to issues of accountability associated with digitalisation and digital exclusion of often already-disadvantaged groups (Eubanks, 2018). The second area of literature is digital governance, which has explored how traditional forms of market governance are being eclipsed through technologies which reshape service delivery using algorithms and machine learning (Henman, 2010a, 2010b). Finally, process-focussed studies forefront the implications of digitalisation for the activation of clients, and for the transformation of frontline roles. One strand of this literature explores whether frontline advisers as "street-level bureaucrats" are being displaced by technologies and "system-level bureaucracies" (Bovens & Zouridis, 2002; Breit et al., 2021; Lipsky, 2010).

Zacka (2017) argues that, in exercising discretion at the frontline, street-level bureaucrats have conflicting moral obligations: efficiency, responsiveness, fairness and respect (p. 100). They must be fast and economical (efficiency), attentive to the particularities of the case and individual circumstances (responsiveness) but also be equitable and impartial (fair) and treat clients with respect. Zacka identifies three "pathological" types as adaptive responses to these moral dispositions (pp. 101–9): indifference, caregiving and enforcement. The first withdraws behind purportedly inflexible rules; the second devotes extensive resources to particular clients; and the third pays more attention to apparently "undeserving" cases.

With the centrality of the adviser-client relationship and variations on street-level bureaucracy as a backdrop, Ball et al. (2023) highlight that the use of the umbrella term "digitalisation" within employment services covers a quite disparate set of electronic, online and technology-driven processes and procedures. Ball et al. (2022) suggest three broad types of digitalisation in employment services: firstly, "virtual engagement", in which a human relationship between adviser and client remains, but face-to-face interaction is moved into an online space (which occurred during COVID-19); secondly, "procedural automation", such as using online platforms to complete applications for benefit and report job search activities to meet compliance requirements—activities often quite removed from face-to-face interaction, with adviser discretion sometimes completely removed; and finally, increased use of AI and algorithms in digitalisation, which typically involve tools which streamline targeted employment assistance, and ration access to more intensive face-to-face forms of support.

As "street-level bureaucrats", frontline advisers have historically had considerable discretion in their interactions with clients. It is often assumed that discretion will disappear in system-level bureaucracies, yet in practice, this may not be the case. Considine et al. (2022) and others argue that a key aspect of digitalised services (including whether they are "efficient" or "successful") depends upon the extent to which advisers' discretion is maintained or altered. Considine et al. (2022) outline five types of adviser-client interactions as "varieties of digitalisation": firstly, "technology-free" interactions, which involve direct, face-to-face interactions between advisers and jobseekers; secondly, "technology-assisted" interactions, deploying information management systems and assessment protocols in client interactions; thirdly, "technology-facilitated" interactions, where citizens use technology and access content and materials themselves, for example to undertake job search or training (Considine et al., 2022); fourthly, "technology-mediated" interactions are self-service whereby citizens access almost all aspects in a digital way, with advisers merely providing technology-assisted support in the event of problems (such as web-chats); and finally, "technology-generated" interactions where the provision of services moves from being digitally mediated to being fully automated, sometimes determined entirely by algorithms. Technology-assisted and technology-facilitated interactions are categorised as "screen-level bureaucracy" (Bovens & Zouridis, 2002), whereby

advisers' decisions are governed by technology. Considine et al. (2022) categorised technology-mediated and technology-generated interactions as "system-level bureaucracies," which they argue are becoming more widespread in the delivery of welfare services.

However, the supposed efficiencies of these interactions within employment services remain unclear. Breit et al. (2021) argue that system-level bureaucracies may involve a shift (rather than a displacement) of discretion and human interaction. Technology, they argue, has different impacts on client-staff proximity, availability and power balance, impacting upon both transparency and accountability, with different technologies having different effects. So, digitalisation may not involve the removal of human elements, but rather may involve the movement of discretion to different stakeholders (Ingold, 2018; McDonald & Marston, 2006; Nguyen & Velayutham, 2018). This includes designers and developers of software. Whilst the views of employment services providers have been considered in a few other studies (Ball et al., 2023; Considine et al., 2022; Cortis et al., 2013), our article adds the novel perspective of interviews with developers of technology for employment services in both countries, as called for by Henman over a decade ago (Henman, 2010a). Drawing on the notion of governmentality, Henman identifies four ways in which information communication technology (ICT) relates to social and public policy. Firstly, social policy can be a response to ICT innovation and use. Secondly, ICT can implement and administer social policy, Thirdly, ICT can be used to develop and analyse social policy. Finally, ICT use can shape the nature and substance of social policy. Our study focused specifically on developers of technology. Such individuals respond to government policies through the development and provision of software and systems for delivery of services, as well as to some extent leading the conversation with industry and government. As such, developers' views provide new insights on the nature of digitalisation, and the rationales for its introduction. Developers' perspectives are an important contribution to debates on the digitalisation of employment services. Bovens and Zouridis (2002) point to the discretionary power of designers and developers of software as the "new street-level bureaucrats", and the impact of this changing power on other more typical agents such as advisers.

Employment services in the UK and Australia are interesting cases within which to explore the nature and impact of digitalisation, given they have been subject to significant policy changes. In 1998 in Australia, the Commonwealth Employment Service was replaced by a fully contracted out provision which has continued in various iterations since (Marston & McDonald, 2008; Nguyen & Velayutham, 2018). In the early 2000s in the UK, "contestability" involved the delivery of active labour market programmes by both the traditional public employment service and contracted providers. This accelerated with the Work Programme in 2011 and has continued with successive programmes. Along with quasi-marketisation, there has been similar adoption by both countries of computerised client case management systems as early as the start of the century (Considine, 2005; Wright, 2003). Digitalisation has continued in both countries, although at different rates, and with different rationales.

The digitalisation of employment services in the UK has largely been driven by Universal Credit (UC) introduced in 2013. The central policy aim of UC was the simplification of the tax and benefits systems by bringing together six separate benefits and tax credits, with the aim of increasing incentives to employment including through the incorporation of real-time information on earnings. UC implementation involved significant changes to the Social Security and activation systems and a large-scale IT transformation programme within the Department for Work and Pensions and the formation of a new agency, DWP Digital. The Universal Credit system involves a "Journal" within which clients log job search activities required for compliance and are able to message their Jobcentre Plus Work Coach. The development of the UC system was based on agile delivery and a "trial, test and learn" approach to making changes to the system based on user feedback.

In Australia, a central component of the "job active" employment services contract (2015–2022) was the development of the IT system ESS Web used by providers to log clients'

compliance activities, frontline adviser interactions with clients and other information required to claim financial payments from the commissioning Department. The blueprint for the New Employment Services Model (Department of Jobs and Small Business, 2018) set out a vision to deploy digitalisation to fully automate many welfare delivery functions rather than considering it as a supplement to face-to-face case management. This model comprised a "Digital First" self-service function for the most job-ready and digital literate, "Digital Plus" for job-ready jobseekers who required help with digital literacy or other practical barriers and "Enhanced Services" for those requiring the most help. A New Employment Services Trial (NEST) followed in 2019–2022. Before the trial ended, the Federal Government commissioned the successor to job active (later named Workforce Australia) for clients requiring the most support. The new model insourced for the first time since 1998 (Davidson, 2022) the most job-ready to the Department of Employment and Workplace Relations via its Workforce Australia Online self-service system encompassing the Digital First component only.

Taking the largely speculative nature of scholarship on the digitalisation of employment services as its starting point, this article seeks to examine and analyse the digitalisation of employment services in the UK and Australia and to map out further the "varieties" across these countries. What is driving digitalisation? Which digital tools are being used in employment services? Has COVID-19 impacted upon digitalisation, and if so, in what specific ways, and with what effects? Are processes of digitalisation resulting in a displacement of frontline advisers, or do they involve a change in, or development of, their roles? What are the consequences of such changes for the evolution of employment services?

2 | METHODS

The comparative mixed method study undertaken comprised a survey of employment service providers in the UK and Australia and in-depth, semi-structured qualitative interviews with employment service providers and technology developers in both countries. The former comprised those responsible for strategy or operations and the latter comprised those who developed software or systems for employment services as their industry customers. Ethics approval for the study was received from the academic institutions involved. For the survey, informed consent was obtained by including a paragraph setting out the aims of the research, privacy and use of data prior to respondents clicking to proceed. For the interviews, informed consent was obtained via a consent form and plain language statement clarifying the aims of the research, privacy and use of data. The survey was devised in Qualtrics and disseminated via distribution channels of the employment service peak bodies in each country such as their newsletters, emails and social media. The interview invitations were shared via the same organisations and via wider professional networks.

The study took place at a pivotal stage of contracting in both countries, in real time. In the UK, the Department for Work and Pensions was in the process of commissioning the Restart programme for the long-term unemployed, along with Kickstart for unemployed youth. In Australia, the study was conducted during the New Employment Services Trial (NEST) and in the lead-up to the commissioning of the new Workforce Australia programme. The study was designed and funded pre-COVID-19 but was conducted during the pandemic in 2020 and 2021. The pandemic impacted the logistics of accessing respondents. It may also have impacted the perceptions of respondents regarding digitalisation for example video as a mode of communication had become normalised within the delivery and in both countries, conditionality was paused.

The survey comprised 17 questions covering information about the provider organisation, contracts delivered and cohorts serviced and questions around use of digital tools, factors affecting use, tasks for which digital tools were used, types of tools/platforms, benefits and

challenges. Based on piloting, the estimated time to complete the survey was 15 minutes. The target groups for responses were individuals with responsibility for strategy (including digital strategy) or operations. There were 52 survey responses in total: 38 in the UK and 14 in Australia. The survey response rate was low; however, this is likely to be due to the additional pressures on providers during the pandemic in shifting their delivery and responding to changing policies. The larger number of responses from UK providers may reflect the greater integration of the research team into the UK context and networks. The survey responses were analysed in Excel. Respondents to the survey in the UK were predominantly CEO or Managing Director (MD), followed by Operations and Strategy. In Australia, it was predominantly Operations, then Strategy followed by CEO or Managing Director (MD). In terms of organisation type, 53 per cent of UK respondents categorised themselves as not-for-profits, 26 per cent from for-profits, 13 per cent social enterprises and 8 per cent were a combination of social enterprises and not-for-profits. In Australia, 79 per cent of respondents categorised themselves as not-for-profit organisations, 14 per cent from for-profits and 7 per cent a combination of social enterprises and non-profits. In the UK, 32 per cent of organisations were large, 32 per cent medium, 19 per cent small and 10 per cent micro. In Australia, 57 per cent were large, 26 per cent medium and 7 per cent micro.

The interview sample totalled 41 respondents. In the UK, there were 25 interviews comprised of seven providers, 14 technology companies and four experts on the employment services sector. In Australia, there were 16 interviews comprised of 11 providers, five technology companies and two experts on the employment services industry. Interviews were audio recorded and transcribed in full. Across both countries employment service provider respondents were largely CEOs or Managing Directors and technology provider respondents were predominantly directors of product development, heads of sales and marketing or business development managers. The data were coded and analysed in Nvivo using codes developed from the survey, and emergent codes were also added.

3 | FINDINGS

3.1 | Drivers of digitalisation in the UK and Australia

Of the 52 providers who responded to the survey, the majority indicated that their use of digital employment service tools in their organisation had increased over the last year (2020–2021). In both the UK and Australia, 86 per cent of respondents pointed to an increased use of digital. All of the remaining respondents in Australia and 10 per cent of the UK respondents stated no change.

Respondents who indicated that their use of digital employment services had increased in their organisation were asked which factors were important in driving this increase (Table 1, below). Two factors dominated in both countries. First, and most important, was COVID-19, with delivery in the context of lockdowns and social distancing cited as a factor that had led to an increased use of digital tools by 76 per cent of respondents in the UK and 79 per cent in Australia. This could be seen as a reactive response to specific—unanticipated—circumstances however, as will be explored in the interviews below, digital delivery forms may have continued and become more strategically embedded amongst employment service providers even without COVID-19. Secondly, and nearly as important a driver in both countries, was a desire to develop existing service delivery models, cited by nearly two-thirds of respondents in the UK, and more than 7 in 10 respondents in Australia. This suggests that in both countries there was a desire to use digitalisation as a means of improving or developing delivery—although the impact and success of this cannot be read from the survey, and neither can the type of digitalisation (technology-assisted, technology-mediated) (Considine et al., 2022).

TABLE 1 Factors prompting increase in use of digital tools.

Factors have prompted an increased use of digital tools in your organisation (select up to three options)	UK respondents (%)	Australian respondents (%)
Delivery in context of COVID/social distancing	76	79
Desire to develop existing service delivery model	64	71
New contractual requirements	20	21
Increased availability of funding	8	0
Working from home	0	7
Updating IT Infrastructure	0	7
New employment services trial	0	7
Person-centred blended face-to-face and digital meetings.	0	7
Supporting vulnerable people who do not have access to digital	4	0
N	25	14

In terms of other factors driving the use of digital tools, one in five survey respondents in both countries pointed to contractual requirements as a driver. This highlights the importance of the state, and commissioning processes in the development and adoption of digitalisation in employment services. Contractual obligations may require for example that providers use particular technologies or interact with users using digital tools. This had an impact on the role that physical delivery took in service design including the leasing of estates (offices).

From the interview data, individual providers had a range of reasons—some reactive, some more strategic, some operational—for adopting a particular technology or tool at a specific point in time. Interviews with providers and developers pointed to a number of additional common drivers of the adoption of digital tools, specifically COVID-19, better client engagement, increased efficiency and competitive advantage.

In some cases, the move to greater use of digital tools had been a temporary expedient, enforced by COVID-19. In both countries, there was widespread recognition amongst respondents that COVID-19 had accelerated many providers' adoption of digital forms of support, again reflecting Zacka (2017) responsiveness consideration:

> In the main, we've been in face-to-face servicing and when COVID impacted we started to move as we had to, to other means. Part of what our… business was doing was moving to an online solution or more a blended solution.
>
> (P3, Australia)

> Five years ago it was a face-to-face program and maybe on the phone….- I'm pretty certain that after COVID, you know, the employability programs will have…face-to-face….a participant port that can be either consumed by the job seeker on their own or supported by a work coach (and)…remote…; there'll be three channels and that'll be the norm. The thing holding it back actually is the insistence….that there is a mandated level of face-to-face intervention.
>
> (P6, UK)

However, as the following technology developer perspective demonstrates, in some cases tools that were being used had been planned, and even implemented, long before COVID-19:

> Some of them are short-term so for example some of our clients very much wanted something very quickly as a result of COVID. I would say that most are medium

> and long-term goals and some of them were I mean things that we created in 2009 are still actually running and are still the most popular on the client's learning management systems.
>
> (T4, UK)

Amongst interview respondents in both countries, there remained a perception that, despite the imperatives of COVID-19 and a rapid acceleration in the use of digital, remote provision had not become normalised or business as usual.

> It changed really rapidly with COVID because the numbers went up and you could then afford things. But the new employment services model will be much smaller in caseload for us. So the reach will be greater, the numbers will be smaller so you need virtual technologies to assist in that servicing because I won't have a site at every suburb. It just won't be financially sustainable, so how do you reach out and get into people's living rooms? The only way is using some supportive digital technologies to do it.
>
> (P3, Australia)

> Unfortunately we also have to pay (advisers) to sit and do admin with clients. I think it's that latter bit that we can perhaps, you know, we can shift that about so they're doing more of the - the holistics, like, what they're good at, what we're paying them for and actually reducing that administrative burden through - instead of being on the phone with a client, the client's giving you information, you're typing it in, and you put it on the system. Actually the client just puts it into a portal it's - I think that's where the efficiency lies, which then frees up the coach to do more - or the adviser to do more advising, which is ultimately what we want them to be doing, not shuffling forms around and clicking things on the system which could largely be automated.
>
> (P5, UK)

Some developers in Australia did note a tension that some contracts between employment services providers and the government required them to include more face-to-face interactions within service delivery, which impacted the contracts providers had with technology providers:

> A lot of them saying well to make this new contract work financially, we have to still digitise as much as possible and there's a dichotomy there because the Department want to do the digitisation and provide all of that. Why do you have to do it, we're looking for you to be face-to-face, one on one mentors and counsellors, rather than referring people to other online services and promoting that.
>
> (T2, Australia)

Similarly, the UK Department for Work and Pensions' stipulations in commissioning on continued face-to-face support, even after COVID-19, was considered to be overly cautious and had the potential to miss some of the (many) advantages associated with hybrid or online delivery:

> I think funders need to think about how to embrace it. So, there's sort of my least favourite phrases in the whole world…the wet signature. In the past, people would have to with their fountain pen, hand sign everything. I think with all of this, the government kind of accepted that you just say, I did that…I think

> funders need to kind of accept that that digital is as good, if not better than face-to-face.
>
> (P2, UK)

> You know digital's not just for Christmas it's for life… And also it's ageless and boundless and I don't want – you know I could say is it better than face-to-face… It's not supposed to replace the face-to-face service. It has had to replace the face-to-face service whilst we've been in …lockdown. And what I can tell you is….we haven't seen big drops in any of our performance.
>
> (E3, UK)

A small proportion of survey respondents cited other drivers. In the UK, there was increased availability of funding and the need to reduce digital exclusion. In Australia, new employment trials, updates to IT infrastructure and COVID-19-related circumstances of increases in working from home, and greater demand for hybrid/blended meetings were given as reasons. Overall, though, the drivers of the use of digital tools suggest similarities, rather than "varieties", in the drivers of digitalisation in the two countries.

3.2 | Use of digital tools in service delivery

Survey respondents were asked about the tasks for which they used digital tools in their organisation (Table 2). In both countries, the most widely cited tasks were communication platforms and remote delivery, both cited by over half of respondents in the UK and the vast majority of respondents in Australia. These were tasks that had undoubtedly become more important in the context of delivering employment services during COVID-19 and both reflect what Ball et al. (2022) term increases in "virtual engagement" and fit with Considine et al.'s (2022) description of "technology-assisted" interactions. Respondents in both countries also pointed to the use of technology to help employment service providers collaborate with other organisations (39 per cent in the UK and 36 per cent in Australia).

"Technology-facilitated" interactions (Considine et al., 2022) or "procedural automation" can be seen in a number of the tasks for which digital technologies were used. Some of these sought to provide clients with greater choice. Providing information to clients about jobs and opportunities was cited by 39 per cent of UK respondents and 29 per cent of Australian respondents. Other tasks were to provide in work support to clients (42 per cent UK, 43 per cent Australia) or develop action plans for job-related activities which interestingly reflected a difference between the countries (39 per cent UK, 50 per cent Australia). It is possible that some of these activities—such as developing action plans—fit more with Considine et al.'s (2022) description of technology-mediated or technology-generated interactions, where advisers may be displaced by system-level bureaucracies and where AI and automation are used extensively. The use of digital tools for efficient matching of clients to jobs or clients to advisers was cited by some respondents, for example. These, along with automated nudges to clients (24 per cent UK, 43 per cent Australia) were cited generally less than technology-assisted and technology-facilitated tasks, but were, nonetheless, visible.

Interestingly, the use of digital tools for employer engagement was cited by a majority of Australian respondents (64 per cent) but fewer in the UK (39 per cent), suggesting the persistence of face-to-face engagement (Ingold et al., 2017). A similar finding was observed with tools which helped providers evidence contract performance. Overall, the proportions citing the use of digital tools for particular tasks was higher in Australia than in the UK, perhaps reflecting the heavily compliance-focused regime in Australia (Davidson, 2022). This variation

TABLE 2 Tasks using digital tools.

For which tasks does your organisation use digital tools (please select all that apply)	UK respondents (%)	Australian respondents (%)
Communication platforms	58	86
Remote delivery	53	71
In-work support	42	43
Collaboration and partnerships with other organisations	39	36
Job plans/action plans	39	50
Providing clients with information about jobs/training opportunities	39	29
Employer engagement (e.g., CRM)	39	64
Evidencing contract performance	39	64
Local labour market intelligence gathering	29	21
Matching clients with jobs	26	43
Automated client reminders/nudges	24	43
Real-time performance management of clients	24	29
Real-time performance management of advisers	21	29
Matching of clients to advisers	16	7
Segmentation of employers	13	14
Other (please specify): accredited learning	3	0
Other (please specify): still developing many of the above	3	0
N	38	14

suggests Australia is further down the path of centring digitalisation within the delivery of employment services than the UK.

Respondents were asked about the extent to which any digital technologies used were "off-the-shelf", heavily customised or bespoke products. "Off-the-shelf" products were more commonplace, particularly for tasks such as communication platforms (79 per cent of UK users of technology for this task and 64 per cent of Australian users of technology for this task indicated that the products were off the shelf); remote delivery (72 per cent UK, 63 per cent Australia); for the development of collaboration and partnership with other organisations (71 per cent UK, 40 per cent Australia); to provide customers with in-work support (50 per cent UK, 50 per cent Australia); and to provide customers with information about job opportunities (62 per cent UK, 50 per cent Australia). Greater customisation of technologies and bespoke products were deployed for tasks where digital products were being used: to help evidence contract performance (54 per cent in the UK, 57 per cent in Australia indicated that products were heavily customised or bespoke); for the performance management of advisers (63 per cent UK, 33 per cent Australia); and in the nudging of clients (63 per cent UK, 60 per cent Australia).

In the interviews, providers and developers viewed the use of technology as a means of removing repetitive administration and reducing duplication of services. In Australia, the direction of policy travel had been to push and embed efficiencies through digital, for example through the New Employment Services Trial, based on the assumption that the increased use of technology would have a positive impact. A technology developer underscored that, rather than pure efficiencies through automation of tasks, the digitalisation offered other advantages that brought to the fore the human dimension of human service delivery:

> So we're providing people with the tools that they can do their job. Basically digitise things to take out the rote, to take out the repetitive stuff so that you can be more human because human interaction is what works.
>
> (T3, Australia)

Relatedly, it was felt that technology could free up advisers to focus on other, strategic tasks and could equip them with better information to assist clients:

> So it is sort of positioning them in a more advanced place, the consultants to work with the job seeker.
>
> (T4, Australia)

> Whether we like it or not COVID has accelerated everybody's digital use. You know everything is online…In days gone by the fear was "Oh my God, you know blended – blended means cheap." And blended doesn't mean cheap. Blended doesn't mean we're taking away… blended means that we're giving them more options. We're going to see everybody face-to-face, God knows we've been craving it. But we're also going to add a wealth of services that they can pick up in their own time and how this can support them in work as well. And they can just go onto this tool. And there's some really good things in there.
>
> (P4, UK)

In the UK, digital tools presented an opportunity for regular "low-level engagement" to maintain client motivation and ensure compliance with the job search requirements of Universal Credit, alongside, or instead of fortnightly in person meetings:

> Really good quality action plan of real, you know, goals focus. You know, focusing on people's strengths, getting people to hone that activity and their action and their behaviour and then having really good quality one to one support to keep people motivated and engaged but also the technical support around how to prepare for and apply for jobs and the support job brokerage and making transitions into work…it can deliver a lot of efficiencies as well. And actually just actually caseload management….You know, and where Jobcentre Plus has struggled in the past – and a large part of what Universal Credit was trying to do – trying to address as well – is having the technology to enable advisers to manage caseloads. (UK, E2).

Providers and developers indicated that users had different perspectives toward technology, particularly those involving "technology-mediated" or "technology-generated" interactions (Considine et al., 2022). After the COVID-19 period, during which the use of technology for interactions had become more commonplace, for some clients, there was more reassurance with using self-serving or remote technology rather than face-to-face interactions:

> Really our main thing is for local authorities and housing associations. A mix of people enquiring about their benefit entitlement. And in particular, in terms of take-up, the people who you're really trying to get to are low earners, often low earners with children. And it just seems to me more likely that those sort of people will be able to self-serve themselves. And some people we know prefer it because it means that you're just typing in your own details rather than telling them to someone.
>
> (P1, UK)

However, it was also recognised that some groups and users may require more coaching and encouragement (e.g., long-term unemployed and those with multiple challenges) and more personalised services, including more face-to-face services (O'Sullivan & Walker, 2018), reflecting Zacka's considerations of fairness and respect.

Providers in Australia highlighted that the delivery of employment services remained, essentially, a human service, requiring technology-free interactions:

> Staff are still pivotal and digital is not a replacement option it's a tool for them to use to go further.
>
> (P3, Australia)

> I can't make you a cup of coffee…barriers or certain circumstances that are not in their favour or haven't been in their favour, you need a person to connect. And make that connection powerful enough to motivate, to feel believed in…
>
> (P4, Australia)

3.3 | A role for discretion? Managing tensions

The interview data analysis contributed a further dimension that the survey was unable to adequately illuminate. This was the clash between the public sector culture of responsible spending on the one-hand and developers' desire to take more risks and innovate. Providers were, to some extent, caught in the middle and had to negotiate this tension. For example, in the UK the competitive environment for contracts had led to providers leveraging technology in order to gain advantages over competitors and sometimes also opportunistic efficiency gains or cost savings (Zacka, 2017):

> I think that many of the organisations that have been in this space for quite a while do what they do and kind of have a small incremental improvement each year and aren't looking to transform. They also have been quite happy staying in the space that is relatively small….Now, we may make mistakes as an organisation, that's the risk factor you have when you try and do things differently but I think it is reasonable to say when you look at it what we've been doing over the last handful of years, that our approach is not typical of the sector, that we do try doing things differently. We've gone out for external investment, so we spend more than someone who is just doing a day job will be spending. So, you know, we're willing to invest in our R&D in a way that others aren't, I think, in our space.
>
> (T2, UK)

However, for other providers a focus on cost savings impacted their capacity for technological innovation, leading to standardisation, a shortcoming similarly levelled at quasi-marketised employment service delivery more broadly (Fuertes & Lindsay, 2016):

> The prime providers[i] are restricted as well because of their costs in terms of making money out of the public procurement funds that are available. So what they then produce is a standardised product that actually the government sees no benefit from….public procurement doesn't actually aid digital innovations in any way shape or form.
>
> (T4, UK)

Ironically, innovation has been used by policymakers in both countries as a justification for both quasi-marketisation of employment services and digitalisation (Davidson, 2022; Department for Work and Pensions, 2012). There was also evidence that the adoption of technology was being held back by the lack of coordination between different groups involved in the design and delivery of employment services.

> You've got the silo of the procurer, you know, DWP or whoever, you've got the silo of the primes, you've got the silo of firms like us and if we only interact occasionally at times when we all need each other, that sometimes means that we're not terribly well-aligned. So I think there's an element of lack of, I don't think coordination because I'm not sure that coordination is what was required but communication is required.
>
> (T2, UK)

The current government offer and direction of policy travel was considered to be very transactional, a system-level bureaucracy focused on threat and sanctions (Casey, 2022). There was also a concern amongst respondents that Australia, in rapidly adopting digitalisation had gone too far, too fast and that hybrid delivery was the most desirable, approximating technology-facilitated or technology-mediated:

> It does concern me that every other country that has gone in and done digital, have immediately come back to, 'it's got to be blended'…digital stand alone, sounds really sexy and sounds really fancy. It's a people-based service being delivered by an app…digital is a great tool to deliver services but digital in itself is not the service.
>
> (P11, Australia)

Respondents in Australia voiced concerns that clients (particularly those who were vulnerable) could be disadvantaged, reflecting Zacka's (2017) fairness consideration:

> So you know, we can't speak with great authority on the pilot [Trial]. But we know it's going to roll out. But it's the same thing and the challenge with digital or with online is that…someone can easily be left behind could fall through the cracks, can disengage. And if they do, how do you re-engage them? And that's something I know the government's looking at with additional servicing and support staff you know, to make sure that people don't fall through the cracks. But it's going to happen.
>
> (P3, Australia)

In the wake of the Robodebt scandal in Australia (Whiteford, 2021), some technology respondents expressed concern about the use of AI and the need to understand the technology underpinning such tools and not rely on such technology:

> I think that whole idea of implementing artificial intelligence to make decisions like they did with Robodebt and all of those kind of things are fraught and we need to be really careful as a society about how much we depend on technology to make big decisions. And how much we make sure that we input the human into it and not depend on the technology.
>
> (T1, Australia)

> I don't think they actually understand all the issues around the human side sufficiently and I think they are not that interested in that, if I may be so bold.

> Therefore, that's our job to continue to advocate around that, while we're delivering these services differently and more efficiently in a digital environment.
>
> (P8, Australia)

The tensions between government as commissioner of services and developer of policies and software companies and developers speak to the "two communities" thesis (Caplan, 1979), which highlights the different motivations of policymakers and research communities toward knowledge and innovation.

4 | DISCUSSION AND CONCLUSION

This article has examined the digitalisation of employment services in the UK and Australia, countries that have been on similar policy trajectories with respect to quasi-markets and increased digitalisation. The article drew on comparative mixed methods studies encompassing surveys of employment service providers and interviews with providers and technology developers in both countries.

The survey findings suggested considerable similarities, rather than variety, in the UK and Australia in terms of the tasks for which digitalisation was used, and the key drivers for this during the COVID-19 period. However, some differences were observed in the perceived importance of these to respondents. The interview data highlighted some differences between the two countries, and point to evolving "varieties of digitalisation". Whilst Universal Credit was central to the UK's policy digitalisation path, the commissioning requirements from the government were still focused on face-to-face delivery, resulting in tensions for contracted service providers in managing costs. By contrast, Australia's accelerated path of the digitalisation of employment services delivery gave rise to evidence that the autonomy of "street-level bureaucrats" was being constrained by digitalisation and leading to the introduction of "system-level bureaucracies" (Bovens & Zouridis, 2002; Breit et al., 2021; Lipsky, 2010). Furthermore, respondents expressed concerns that digitalisation was moving too far, too fast with the risk of further exclusion of individuals. Nevertheless, there was evidence that within digitalised delivery across the two countries, a balance needed to be struck between Zacka's considerations of efficiency, responsiveness, fairness and respect (20,217: 100). In terms of discretion at the frontline, in both countries providers were keen to reduce the administrative burden on their frontline staff through the digitalisation of some aspects of delivery.

In both countries, tensions arose from the differing motivations of policymaker and developer communities and providers, whereby ICT responded to the requirements of policymakers (Henman, 2010b). However, providers were to some extent stuck in the middle and managing the challenge of attaining competitive advantage within this. In the UK there was explicit mention of the need to better coordinate between providers but this was absent in Australia. Perhaps surprisingly there was little mention of explicit use of Artificial intelligence in terms of autonomous performance of tasks, or of algorithms (Ball et al., 2022). It could be that respondents did not consider these important, or that although they might be present within tools utilised, they were not overtly considered which is of concern.

In Australia, a key theme was the need to retain the human and relational dimension through hybrid or blended delivery. Based on this study, technology-mediated or technology-facilitated (Considine et al., 2022) digitalisation would appear to be the preferred option of employment service providers and technology developers.

It is critical that future policy discussions and scholarship involve a range of stakeholders, including technology developers and end users (frontline staff, clients and employers) and that

adequate consideration is given to the assumptions underpinning the deployment of digital technologies, what is involved in their design and implementation and what is lost and what is gained for all concerned.

AUTHOR CONTRIBUTIONS

Jo Ingold: Software; formal analysis; data curation; supervision; writing – review and editing; writing – original draft; conceptualization; resources. **Chris Forde:** Writing – review and editing; writing – original draft; formal analysis; validation. **David Robertshaw:** Conceptualization; investigation; project administration; formal analysis; writing – review and editing.

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CONFLICT OF INTEREST STATEMENT

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ENDNOTE

[1] For Restart and its programme predecessors, prime providers held the contracts with DWP and constructed supply chains for delivery of services.

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