

The Digital Governance of Welfare to Work

Industry report on interviews
with international experts

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Introduction

The Australian Federal Government plans to roll out a new 'digital first' employment services model in July 2022. This new employment services model, known as Workforce Australia will involve streaming job seekers between those who will be expected to self-service online (digital) and those who will receive more intensive face-to-face services (provider services). Workforce Australia was developed in response to the *I Want to Work Report* (2018). This report stated that the new model will be "grounded in digital". Workforce Australia will be:

personalised, simple to use yet highly sophisticated behind the scenes. A digital ecosystem which constantly evolves, becoming smarter each time a job seeker, employer or service provider logs on. It will allow more than half of all job seekers to get on with finding work themselves — rather than slowing them down. It will match the right candidates for employers — for free (DoJSB, 2018, p. 4)

The provider services component of Workforce Australia has been undergoing a trial in two key regions in Australia, Adelaide South and Northern New South Wales. There has also been an evaluation of the Online Employment Service (DESE, 2021). These trials and the release of the tender for Workforce Australia in 2022 give us some insight into what the new digital system may look like. We know that all job seekers will begin their journey digitally through an online version of the Job Seeker Classification Instrument (JSCI). They will also be assessed for their digital readiness. These two results will determine whether they will be streamed into digital or provider services. Those who self-service will be required to report their job search activities on a digital dashboard which has already raised concerns regarding its effectiveness and useability (Casey, 2021). Digital job seekers will also be expected to check in every four months to undertake an employability activity, including Work for the Dole. There are additional services provided via a call centre if they require assistance. Once they have been unemployed for 12 months these job seekers will no longer be considered capable of self-service and will be entered into the provider services system. They will also be able to self-select into provider services, however this will require them to contact the call centre and explain why they feel they are not able to self-service. It is unclear how these decisions will be supported.

This Industry Report shares the results of the first stage of our research into Workforce Australia and the impact digital governance will have on welfare to work. It recognises that the transition to digital is not unique to Australia and many countries are using increasingly digital systems to deliver benefits administration and labour market activation. This Report will share the findings from 24 interviews undertaken with international experts about the benefits and challenges of digital systems. The interviews were approved by the University of Melbourne's human ethics committee (2021-21304-16960-3) It will also highlight the different ways digital systems are being used, and why these differences play an important role in how service providers, job seekers and employers will access and engage with employment services in the future. We hope these findings will provide valuable insights into the international experiences of digitalisation in public employment services (PES), and shed some light on what can be learned from these experiences in relation to the Australian case.

The study was supported by funding from an Australian Research Council (ARC) Linkage Grant (LP190100686), in partnership with the National Employment Services Association (NESA) and Westgate Community Initiatives Group (WCIG). It builds on the team's long-standing program of research on welfare reform and the front line of employment services delivery, which has been funded by multiple ARC grants. This began in the late 1990s and has included four surveys of the Australian employment services sector workforce (in 1998, 2008, 2012, and 2016) along with comparative research in the UK, Netherlands, and Aotearoa New Zealand.

Acknowledgements

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I. Research method

Along with Australia, the UK, Belgium and Denmark have been at the vanguard of reforming their employment services systems over the past 30 years (Finn, 2010; van Berkel & Borghi, 2008).

In Denmark, employment services are delivered by municipal job centres. The central government is experimenting with online platforms and web-based knowledge banks as a way of systematically disseminating knowledge about what works to front line staff in job centres. Municipalities can draw on web-based tools to estimate costs and potential savings 'of selecting different employment measures for different target groups' (Andersen, Caswell, & Larsen, 2017). However, at this stage, this type of profiling is delivered as an 'opt-in' for new job seekers. ICT is also being harnessed to administer job seeker compliance, although this is not automated. Systems for competency-based job matching are increasingly being integrated. The Danish government is exploring the introduction of a 'virtual job centre'.

The Flemish region of Belgium is one of the states that has already transitioned to a 'digital-by-default' system for assisting job seekers and is seen as a model for Australia to follow (DOJSB 2018). Harder-to-help job seekers can still receive face-to-face employment support from professional advisors, although under the Belgian model this support is delivered by the Flemish PES rather than contracted providers. VDAB, the Flemish PES, currently use a digital-first system. Job seekers are assessed for digital capability and then can access services digitally for 12 months before being expected to transition to more intensive servicing. They use an AI-informed profiling tool to determine which job seekers are to be contacted for support and when. Under the Flemish model, the AI tool is only used to determine order of contact. The case officers make the discretionary decisions about whether job seekers are meeting their obligations. This includes discussions about expectations for job search activity but there is no strict compliance. Any sanctions would also require a mediator to action them.

In the UK, since the introduction of Universal Credit in 2012, there has been an increased emphasis on moving Jobcentre Plus services online and increasing the number of job seekers self-servicing through online job search and training. However, to date, there is little in the way of profiling or targeting in the UK system. There is an online journal for job seekers to use to track their

job search and compliance activities; however, the focus of digital services has been, predominantly, on the streamlining of benefits administration.

We chose to interview experts, consultants, and practitioners from each of these countries. However, through snowball sampling (asking interviewees for recommendations for others we should speak to) we were also able to gain insights from multiple other countries –including Norway and Ireland. Some interviewees' experience also spanned across regions such as Latin America or Europe.

In total we undertook 24 interviews with a total of 29 interviewees (some interviews were undertaken with multiple interviewees).

Country	Position
Belgium	1 academic, 9 practitioner
Denmark	6 academic
UK	4 academic, 3 practitioner, 1 consultant
Intra-national	3 academic, 2 consultant

The questions we asked were semi-structured. These included questions about:

- What does digitalisation look like in their country/the countries they were aware of?
- What challenges did digitalisation represent for these services and the governments delivering them?
- What opportunities did it open up?
- What do we need to be aware of as Australia moves towards an increasingly digitalised employment system?
- In seeking responses we also chose to keep the definition of digitalization broad in order to capture the breadth of what interviewees saw as digital transformation.

Interviews took place in mid-2021, when issues of digitalisation in activation and employment services were receiving considerable public attention. Lockdown restrictions and the Covid-19 pandemic meant that many OECD and EU countries were moving towards digital delivery channels or intensifying earlier shifts towards online employment services models. A core aim of these interviews with international experts was to understand the differences in form that these attempts to digitalise employment services were taking, and the extent to which countries were actively embracing not

just online services but automated decision-making systems, machine learning and AI.

The results of these interviews were then coded using Nvivo qualitative data analysis software. This coding was informed by the interview guide, which divided the questions into themes such as the drivers and enablers of digitalisation. Further areas of interest which emerged during the coding were also coded to see what 'surprising' patterns might emerge. The results of this thematic coding are detailed below. Interviewees are only referred to by an identification number. Where relevant the country may be identified, but to minimise the risk of re-identification most details are removed unless essential.

2. Modes of digitalisation

Contemporary scholarship and policy documents frequently identify 'digitalisation' as an emerging and increasingly significant reform agenda in welfare administration and public services delivery more broadly. Yet the meaning of the term is often unclear due to 'digitalisation' being used in ambiguous ways. Consequently, interviewees were asked to reflect on how they understood 'digitalisation', in the specific context of welfare and employment services delivery. Interview data revealed that there were many ways people spoke about 'digitalisation'. Multiple interviewees pointed to this diversity themselves and defined it in their own distinct ways.

I think one of the problems is that when we talk about digitization, it's both A.I. and social profiling and it's having an online MSTeams meeting or and it's these online platforms and so on. So I don't know. (I1)

I think that the problem when we talk about the digitalization of employment services is it's a very broad concept... I think we have at least we have three types of digitalisation (I11)

Other researchers have tried to define digitalisation. Lee (2010) undertook a qualitative meta-synthesis of research to date on models of e-government and argues that the process can be defined by stages. Lee suggests that these models look very different depending on whether they are describing interactions with citizens, or whether they describe the back office, technical operations. The model for citizen interactions breaks down e-government as representing presentation of information, interaction, transaction, participation, and involvement. For the organisations themselves this would instead include integration, streamlining, transformation and process management. Some of the models Lee (2010) analysed presented this as a progression of services over time (Anderson & Henriksen, 2006), but they argue instead that while technically it is accumulative, many governments will adopt and adapt these as necessary.

Jansen and Olnes (2016) use Lee's research as a starting point to provide their own model. The main categories in their model include

1. *Simple, one-way information provision* – provide documents to users for downloading.
2. *Two-way communication and information provision* – provide specific information services on user request.
3. *Dynamic, secure interaction between user and system* – initiate a well-defined data handling process, complete an electronic form.
4. *Secure transaction and contraction* – carry out a specific task, regulated by law, which may be part of public service provision.
5. *Complete transaction process* – initiate and execute a complete set of tasks, e.g. case handling.
6. *Support functions* – execute a process that is necessary/required for executing a task, e.g. log in, eSignature.

Our research revealed a different set of distinctions, and these were much more closely related to the specific technology and how it shaped the interaction between the job seeker and the service – whether government or contracted service provider. Almost all of what was discussed with us involved job seeker-centred innovations, such as engaging virtually, accessing services and submitting forms via digital portals, or using AI or algorithms to profile job seekers for services or job matching. These different modes, their key features, benefits, and challenges are outlined in **Table 2.1** at the end of this section. We will begin by discussing virtual engagement, as it was mentioned by all interviewees and was seen as part of the new COVID-normal world.

Virtual engagement

When asked about engaging digitally, virtual engagement was one of the first forms of interaction interviewees mentioned. Virtual engagement captured all forms of face-to-face servicing which had been moved to a virtual environment – either via Zoom, email or, in the UK, it could also include the online journal. One participant also spoke about the introduction of chatbots in Norway but this was arguably more relevant as a form of AI interaction than virtual engagement given it was unidirectional. This is because virtual engagement largely moved the face-to-face interaction into the online space. There was still a human relationship at the centre and discretion was retained.

COVID-19 was obviously a significant factor in driving the importance of virtual engagement. Most services had to transition to online service delivery in one way or another. Some continued to use phone calls, but digital meetings over Zoom or MS Teams were the most common. When asked if they thought this transition was COVID-specific or something that would continue, many interviewees felt that it would continue to be a part of the service moving forward. That the face-to-face service was likely to be permanently transitioned to a more blended offering. For example, Interviewee 14 felt that

even when we go back it will still be blended. You still need that advisor interaction... [but] , we are piloting a blended hybrid approach, you know, where it's two days at the office and two days at home... people don't need to travel... Why would you make someone travel for an appointment when they can do it [online] every so often? We are not saying replace it, we're just saying blend it.

One interviewee had run a study for a private firm to assess the interest in primarily interacting with government through digital channels, particularly over video. This study found that people in this European country were increasingly interested in interacting with government services through digital platforms:

people are now more inclined to have digital interactions with government, for example, using video calling kind of solutions, not because they necessarily want to but they see it as a) a necessity in today's day and age. But they're also starting to see the sort of benefits that it has, because, you know, we're doing this now and we're actually getting pretty good at it, at having video calls. Is it the nicest thing in the universe? No, absolutely not. But in many scenarios, if I had to choose between driving to city hall, parking my car, waiting there and then having a 10 minute meeting with a civil servant

to discuss my planning application for a building permit, yeah, I might as well do that online. There's no need to have that in-person meeting and in-person is not going to go away. But I think we are now discovering that there are many use cases where a video call has some added value over a simple phone call. And has added value over the actual in-person meeting in certain situations, and I think we're trying to figure out what that ideal point is but I think in general, more and more organizations are seeing the potential it has.

Much was made of the opportunity to reduce the burden for both job seekers and those at the front line. Job seekers with caring duties, physical or mental health challenges, those who worked part time were better off with virtual services (I3, I5). It also gave job seekers the opportunity to “be in a place where they felt at ease” (I1). This could be a benefit for the front line as well as one interviewee felt that it had opened up case workers to more appreciation of job seekers' lives. It

gave advisors more of a sense of what the situation was or they were able to see, in some cases, I suppose, levels of poverty and difficulty that they didn't necessarily appreciate when they sat in an office and someone was coming to them. (I17)

Despite this enthusiasm for virtual engagement, there were questions around how it influenced both case worker and job seeker behaviour. There were concerns that purely text-based interactions might make building relationships challenging (I11, I16). For those at the front line it could also be used to schedule meetings in quick succession, leading to very little downtime and work-intensification (I22). Others felt more strongly that digital communication was potentially dehumanising for job seekers (I8) or risked them experiencing a greater degree of alienation, isolation or lost connection. Interviewee 16 made the point that having a blanket approach was unlikely to be effective as it will be very individualised. In some cases it could be “difficult to get a grasp of who they are in digital channels, while others are easier to understand there. So, it depends sort of on the group. Some people share more things online, while others get more reserved and they also reach new groups” (I16).

Finally, there were some interviewees who felt that the ease and reduction of hassle costs might be a reason for not following through with increasing virtual engagement. Some felt that face to face meetings were needed as a form of discipline for job seekers, “it needs to take some hassle” (I5). Interviewee 8 agreed that “the tension is between... if it's so easy for people to do it,

then, you know are they providing enough surveillance and would there be a risk of fraud with having such, you know, if you don't physically make people come into an office?"

Overall, it was felt that virtual engagement offered many opportunities for job seekers and service providers, and its escalation during COVID-19 had demonstrated that it was a viable alternative. However, there were risks involved and determining how this would be used moving forward was still the subject of debate.

Procedural automation

In addition to the delivery of virtual engagement through various digital formats, another form of digitalisation interviewees spoke about was the automation of processes. This could include the completion of forms and applications online, reporting compliance online rather than over the phone or face-to-face. It could also capture the use of webpages and portals, the provision of information online. One interviewee reflected on the fact that they felt that many countries were referring to delivering web pages, portals or apps for existing services, when they made claims to digitalisation (I12). Unlike virtual engagement, this service was often quite removed from face-to-face and had largely removed front line discretion from the equation. Job seekers would be expected to find and provide administrative information largely independently, using a digital service.

Most of our interviewees saw this transition as 'old news' and something that was happening for 10+ years in many cases (I3, I8, I12, I16). This was seen as an almost inevitable facet of the modern era. Interviewee 14 noted that

there's been a real push to say this is life. We can't really get away from this any more if people say, oh no, I don't want you to use digital stuff. It's not really an option now, you know, and it would be wrong for us to allow customers to say 'I don't want to use that'. We'd be doing them a disservice, if we didn't say this is the way of the world, you go into a restaurant now you're going to need to scan an app and put your details in if you want to have something to eat. Do you know? ... The world's changed.

In some cases this push wasn't just inevitable, it was a demand on behalf of citizens. Interviewee 19 stated that "they don't understand why they have to come to the employment service, because they do everything online. They order their clothes, they order their cars.

They are everything online. So employment services for them, it's obvious that it must be done online."

The delivery of information, services and administration through digital channels also allows for greater data collection and scrutiny. As more services are delivered online, performance can be better assessed (I1, I6, I16) and, arguably controlled (I3). Ideally case workers and job seekers could also use this data to better inform their relationship and determine the job seekers needs. Interviewee 7 saw a great opportunity for job seeker dashboards to create a more supportive relationship where

the case manager or the advisor in the employment office will [working] together with a job seeker and will also be able to see and steer more through the software they have and instead of having, like scheduled meetings where the job seekers show up once a month to prove that something has been happening... it can be kind of an ongoing process which is managed through a dashboard... that would provide more information to the job seeker themselves, so it can help make it more transparent. What has been happening? What has the case manager been doing cetera to empower job seekers more?

COVID-19 was seen as playing a role in expediting this transition too, although in some cases the countries that didn't already have digital services in place were forced to assemble 'quick and dirty fixes' (I12). This may prove challenging in later years and several interviewees who were working closely with practitioners noted that the speed of the transition was challenging at the front line (I5, I6, I14, I17, I19, I22).

One concern was that digitalisation required citizens to be more effective at self-advocacy and this would be challenging for those with higher needs. This was particularly the case for those with lower levels of digital literacy or access. In Denmark the transition to an ebox for official communications saw job seekers without reliable internet and email struggle to access important information, but equally this information was hard to communicate via post. This is not a new concern and has played a significant role in questions about service access for some time. This issue is explored in more detail under challenges in a later section.

The key response to this challenge however was that any transition to digital servicing needed to ensure there are tools in place to address possible service gaps. In the UK, NGO's stepped in when Universal Credit was launched. Other countries are still finding this gap a

tough one to manage, relying on Public Employment Services (PES) to provide additional support where needed. The main solution for most services was that there remained a face-to-face option for those with less literacy or access. How to prioritise the increasingly scarce resources in order to provide this service was a key concern and leads us to our final form of digitalisation, AI and algorithmic modelling.

AI and algorithmic modelling

Where virtual engagement and online self-servicing involved harnessing digitalisation to change the mode of service delivery, a number of countries also drew on digital technologies to streamline how they targeted employment assistance and rationed access to intensive forms of support. This has historically been a core issue for PES; how to allocate limited case management and other resources to those citizens who need assistance the most. Few public employment services offer universal services, so evidence-based criteria are required to ensure services are allocated efficiently and not wasted on those likely to find employment on their own steam.

Several interviewees noted that targeting services to job seekers who were most in-need was a key part of modern employment service provision (I1, I3, I6, I10, I17, I21, I22). There are some job seekers who do not need additional support and may even find it intrusive to have to attend a service. The ability to allow these job seekers to self-serve was important, but how the self-sufficient and those in need of support would be determined was far less clear. Flanders and Denmark have both introduced different forms of profiling that use either statistical algorithms or some form of machine learning. The UK does not target services using this approach. In the UK algorithms are used instead for a CV builder tool. The CV builder is an example of how algorithms can provide helpful suggestions (I14). It can help expand the knowledge of counsellors as well as job seekers by providing more information.

What the CV builder does, it gives me a list of duties and I would say to the customer have you done this? And she's like, yeah, actually I've done that before, so you know, before we know it we had this amazing CV. Yeah. I was impressed by the amount of stuff that this customer had done. She was impressed because she was like, I've never thought of that stuff. I've never thought of saying that I've got a food hygiene certificate, which she did because she had to have that working in food, cash handling, customer experience, answering the phone, taking notes. It was all things like that, when somebody

would say to you I've just worked in the Chinese takeaway you would never have thought of that. So I always use that example when I'm talking to advisors to say this actually made me a better advisor because it allowed me to really understand (I14)

Access to more information through algorithms may help job seekers navigate the limits of their knowledge. One interviewee spoke extensively about how digital tools could allow job seekers to navigate the limitations of knowledge:

The first thing they ask you when you enter their office, they ask you which type of job do you want to do? And there you have a human problem, because I cannot name a job that I've never heard of before somewhere. So there's a human limit, but based on the competencies, we can show [potential] job titles. Jobs that actually are linked to their competencies, but that have a different title because companies want to do their own thing with the job titles (I18).

VDAB also used AI and algorithm-based tools to deliver a job-matching and competency-based matching service. This competency based matching service was a key component of the system in Flanders. This system reads through the job seeker's profile and matches to jobs or training. The idea behind the job matching and the competency-based matching is that it provides an opportunity for people to find, apply and be considered for jobs that they otherwise wouldn't contemplate or be considered for, as per interviewee 18's assertions above.

However, the actual effectiveness of these models is questionable (I1). VDAB reported accuracy of around 70-80% for their predictive algorithms (I19, 21). No data was shared that might reveal if the use of competency-based matching improves success rates. Were employers happy to accept applicants based on competencies alone? Interviewee 4 noted that many of these algorithms

have huge problems with their accuracy. They're just not great at doing the job they set out to do. And so despite twenty five years of worldwide experience ... these algorithms only work for addressing workload management deficiencies in public employment systems and that's why their perpetuated, but they certainly don't work as advertised... there's no shared science underpinning them. They all use different approaches to the training data, or underpinning data for them, and they use everything from logit, probit, to AI, and forest, tree and neural

networks. There's all kinds of voodoo maths going on. None of them can get the accuracy rate above 70 percent.

Interviewee 11 mentioned high error rates in Denmark but that this was driven by the fact that the programmers were not allowed to use the more sophisticated algorithms or machine learning. According to this interviewee,

These algorithms come out with a prediction about who would we predict would be long term unemployed... what turned out in this experiment was that they were, afterwards, they, of course, could see what happened with these people and they could see that they were mistaken in up to 40 percent of the cases. So that's a huge rate of mistakes made by this profiling system and the developer of these systems said, yeah, we could make a much more efficient system, but we have not been allowed to use A.I. in the system because if we make the system learn from its own mistakes... so if you saw how it was feeding the system with the same data about what happened with these people, the system would learn by itself and then correct it over time, it would correct these kind of mistaken decisions.

However, they had only been able to use inputs, not results. This is a significant limitation.

Interviewee 10 also mentioned that the Danish system was built on a very limited data set

that's why I said 'AI-like', you don't have like big data and I think it's the same in Australia, with logistic regression and maybe some decision trees, models, but on a limited or specified training set, you don't have like a model of nine billion parameters that's trained on billions of data. You don't have that. I think that like the national profiling tool is trained by one hundred and fifty thousand cases in a two year period.

Given these challenges, one interviewee questioned how value for money for these digital tools was even being demonstrated (I4). For countries that use profiling or job matching as a decision-making tool how do you quantify it (I10)?

Ultimately predictive models might be able to point us in the direction of new ideas, more information but "life is always much more complicated than anyone who decides the digital system assumes. Yeah, so a lot of policy always is done on the average. And, you know, you're looking at the sort of average claim and average place. So I don't I think that any sort of digital system should be made in a way that they can build in more nuances." (I9) These tools can only predict possible future behaviour, the results of a predictive algorithm are not facts. Given that, is it reasonable to continue to consider this approach for high impact decision making such as payments or compliance based issues? More information is one thing, risking a job seeker being incorrectly penalised, or failing to receive necessary support, is another.

To date most of those we spoke to felt that there was a lot of caution internationally in applying these models. In Denmark profiling was seen as introducing a high risk of discrimination and bias so governments were cautious (I1, I5, I6, I10). The Flemish were optimistic about profiling for the opportunity to help target services but felt that the human element was seen as an essential component to minimise bias or risk (I19, I21, I23). In Australia, the job seeker classification instrument (JSCI) remains a key profiling tool, despite ongoing concerns about its effectiveness. With the New Employment Services Model the combination of the JSCI and a digital dashboard to determine capability and job search capacity will represent one of the first attempts to fully digitalise the system in a way that we have not seen internationally before in a welfare-to-work system.

Mode of digitalisation	Key features	Challenges	Opportunities
Virtual engagement	<p>Use of online tools to facilitate interactions between staff and job seekers.</p> <p>This could include Zoom, MSTeams or online chat functions such as the online journal in the UK.</p> <p>There is minimal change to the interaction itself, aside from the location.</p>	<p>Digital exclusion for clients without access or digital literacy.</p> <p>Potentially less down-time for staff.</p>	<p>More flexible access opportunities for clients and staff.</p> <p>Efficient.</p> <p>Cost-effective.</p>
Procedural automation	<p>Translation of processes to the online environment.</p> <p>This could include using IT-based forms to apply for services, verify identity or report compliance.</p> <p>There is little to no interaction directly with PES staff. The job seeker engages with the technology directly.</p>	<p>Digital exclusion for clients without access or digital literacy.</p> <p>Loss of discretion by staff.</p>	<p>24/7 access to services.</p> <p>Efficient</p> <p>Cost -effective</p> <p>Centrally controlled compliance.</p>
AI and algorithmic modelling	<p>Use of AI and algorithms to provide predictive information based on service use patterns.</p> <p>This could include using data to profile clients, recommend jobs or to build a CV.</p> <p>This interaction may be mediated or unmediated depending.</p>	<p>Risk of bias.</p> <p>Loss of transparency of decision making.</p> <p>Risk of deference to the algorithm on behalf of staff (if mediated).</p>	<p>Better targeting and personalisation.</p> <p>Efficient.</p> <p>Cost effective.</p>

Table 2.1 Modes of digitalisation

3. Drivers of digitalisation

One of the key questions interviewees were asked was what they felt was the reasoning for the transition to digital service provision in welfare-to-work. While many reasons were given; some saw it as an inevitable part of the overarching digital transition happening globally, others saw it as part of a government push to deliver more cost effective and efficient services. Alternatively some saw it as a political drive to appear innovative, or to use digital tools to better control service provision from the centre. One or two mentioned the opportunity for time saving, others that it would better support more data-driven (and therefore less biased) decision making. Overall four major themes were captured in the responses.

Technological determinism

First, many saw it as inevitable – part of the changing world (I5, I12, I14, I17, I19). This is partially consumer-demand, as noted above. Increasingly citizens are accustomed to a certain level of digital services (I11, I12, I13, I19). Interviewee 11 noted that citizens increasingly wondered why they “should meet up at the job center for administrative reasons? If you can do it like you do with the tax authorities that you will fill in what's necessary to fill in at home or whatever it could be. So, of course, you can do something more effective” (I11). Interviewee 12 similarly reflected that most of us “do all our transactions online these days or the majority of our transactions online so there's this expectation from the job seeker as a client that they also can manage their unemployment spell online” (I12).

In addition to the demand by job seekers, digital literacy was considered a normal part of life today and would be a significant handicap in job search activities for those who were not able to participate (I12, I14, I17, I19). Interviewee 19 noted that this was becoming a key part of their service offer,

You need to work with these devices in every profession... if you don't know anything about how to use a computer or a smartphone or so you go to the [training] and then they help you, they teach you how to get into the system ... They can also use the devices in our offices, but nowadays, the [staff] aren't allowed anymore to fill in the forms for them, they can give support and help, but they can't do it in the place of the job seeker. The job seeker has to understand. They have to do it on their own. Otherwise, they even can't buy a ticket to go to the movies. So it's important.

Similarly Interviewee 14 reflected that “there's been a real push to say this is life. We can't really get away from this any more if people say, oh no, I don't want you to use digital stuff. It's not really an option now, you know, and it would be wrong for us to allow customers to say 'I don't want to use that'. We'd be doing them a disservice, if we didn't say this is the way of the world”.

Efficiency dividends

This feeling of inevitability also supported the importance of targeting services to those job seekers who did need the additional support. The ability to target these services would mean that those who did not need to access training, attend regular meetings or other support services could self-service. This was in service of more efficient servicing overall.

A combination of profiling, digitized forms and virtual servicing was hoped to allow for more efficient allocation of resources. However, the consideration of job seeker's time and needs was most commonly discussed in regards to their ability to access forms and submit information online or arrange to meet virtually, both are discussed in detail above. The efficiency of profiling was rarely discussed as a push factor. It was more for business efficiency. To avoid spending resources unnecessarily. The following interviewees highlight this focus on organisational efficiency;

I think one of the benefits from that model you outlined, which is outlined is sort of like in organizational efficiency or state efficiency so perhaps you can really cut some caseworker's and save some money (I10)

So I think cost and efficiency, I think the fact that a lot of people who make a claim either don't make it for very long and don't need very much help, so I think there is a really good and clear argument to focus resources on those that need it the most. And for a lot of people who are moving out of one job are unemployed, but really just need kind of that sort of, I suppose, financial cushion (I17)

If we have a group of our people that we can identify as those that are quite capable within the period of four to six months to find their own job, if we give them the opportunity and the tools, then they can do their own thing and our [staff] can focus on those that need more assistance and more help. And that is the drive there. (I18)

Cutting costs

However, the decision to make services more efficient can also be driven by a desire to cut costs. This was the most common reason given for the transition to digital

(I1,3,4,5,7,8,9,10,11,12,13,15,16,17,18,21,22,23). We have distinguished between cost cutting and efficiency because, as Interviewee 12 pointed out, “in all countries, cost always is some kind of an issue... So I think from [our] perspective, it's certainly true that that we would always recommend, ... never to use that as a cost saving measure in terms of the total cost, so not reduced to spending on employment services”.

However, reducing costs was often the justification given by our interviewees for the most likely reason for the introduction of increasingly digital service provision.

A new policy reform has been decided that they need to, uh, cut their budget a lot in the coming years. Several billions overall. So they need to find a way to decrease spending. And here, I think the combination of experience with the COVID-19 situation and this need for cutting costs, you can really see that a lot of [governments] are trying out new things (I3)

So better matching could hypothetically lead to a better functioning PES. So that's the one side. The other side is the obvious gains in efficiencies. If you have a well-functioning chatbot, you might need fewer caseworkers and counsellors. So it's the hope of combining efficiency with effectiveness (I13)

The service in Norway has even gone so far as to use what our interviewees referred to as a channel strategy which would encourage job seekers to “use cost efficient channels such as chat, call centres and so on” The purpose of this was intended to be to “free up time for front line workers to focus on the more complex issues, to meet and counsel with the vulnerable job seekers. So they want a large group of job seekers on digital channels and then save time to actually meet them and follow up the other ones”. However, while it was still possible for those in need to access face-to-face services, office hours had been reduced and job seekers were expected to book appointments “as you would do your doctors and so on” (I16).

Policing compliance and discretion

The channel strategy described above represents one way that governments have tried to change how citizens engage with welfare-to-work services. Another driver of digitalisation was, according to some of our interviewees an attempt by governments to exert greater centralised control (I1, 4, 6,22).

This centralised control could include a greater surveillance of whether job seekers were meeting their obligations (I4, I6, I7, I8, I22). The stricter parameters of

an online system would be less flexible in the face of complex, lived experiences. It also required the jobseekers to be comfortable navigating these complexities as “they have to give accounts of themselves and justify themselves in a strategic situation that threatens their livelihood” (I4). One interviewee had a more optimistic view of the online compliance system, seeing it as an opportunity to have a conversation about expectations and capability (I14), but was seen as equally capable of being used to bully or challenge a job seeker’s claims of job search activity. Interviewee 8 mentioned that a case worker can “monitor the job search activity because it's recorded within [the] system... it can be used as evidence for sanctions”.

Casey (2021) wrote of the growing concern in the Australian system about using digital systems to assess compliance with mutual obligations. She coined the term ‘digital dole parole’ to explore the risks involved in a system that “provides efficiency and integrity gains for government [but which carries] concerns that vulnerable cohorts can be adversely affected when hard-wired decisions are difficult to challenge or reverse” (pp. 11-12). This type of administrative control was well beyond anything likely to be implemented in the countries of our European interviewees because of the rules underpinning the GDPR where the use of job seeker data to make a decision was seen as requiring the discretion of a human decision maker (I6, I16).

In addition to the direct impact of digital administration and compliance monitoring in controlling decision making, there is also the idea that digital systems can also change decision-making at the front line. There have been concerns—particularly in Denmark—that case workers are too lenient in terms of applying sanctions and conditionality. So, increased digitalisation afforded governments an opportunity to exert greater control over discretion at the front line (I1, I3 and I6). By requiring everything to be recorded as part of a digital, data-based model, governments had hoped to drive more consistent outcomes. Interviewee 10 also reported that this data collection appeared to be driven by a desire to ensure case workers were obeying the rules. Over time, Interviewee 15 argues, staff may find that while they “are not yet obliged to follow it but the system moves smoothly in a direction [where] they feel less and less free to go against the system, to come up with something, something else against the system. Because all that information is followed is monitored”.

Interviewee 1 paints a vivid picture. They portray these digital systems as

a way to steer and control the social workers judgments on what kind of activities social recipients, the recipients of social assistance should receive. The idea that social workers were too kind basically and did not activate them sufficiently so they made categories and sort of strengthened the rules as to who should be put in by category and so on. So, that's one logic behind profiling that is already there and that running things digitally. You know, AI also has this claim to being evidence based and, you know, providing more accurate decisions. So it's yet another way to sort of steer social workers now, just simply now, not only from moral justifications, but also just sort of claiming, yeah, a more rational decision making and so on. Right. So I think that's one of the reasons why AI is so tempting for policymakers at the moment. So it was both the supposedly irrational decision making of the unemployed but it's also the decision making of the social worker, the case workers at the street level.

While this idea, that the digital tools serve to shape and ultimately control decision making at the front line, is yet to be supported by research evidence, there are steps being made to better understand the impact these tools have. Snow (2020) for example, has explored the impact of algorithmic decision-making tools on the decisions made at street –level. What she found was that these tools would be utilised in multiple ways. Some displayed an automation bias, deferring in some way to the algorithm's recommendation. Others would reject the algorithm altogether, seemingly on principle. However, the most common response was to use the tool as intended, to inform decision making. The sample in Snow's research was small, only thirteen practitioners across four sites, so is fairly exploratory.

4. How does digitalisation impact those involved in the welfare to work system?

There are multiple stakeholders involved in the welfare to work system. Job seekers, service providers (whether privatised or public) and employers. We asked interviewees to share how they thought digitalisation – writ large – had impacted each of these stakeholders in turn.

Impact on job seekers

For job seekers who are digitally literate and with stable internet access there is the benefit of being able to access services or information virtually or submit forms online. For many this is believed to be more convenient and allow for greater flexibility. Almost all interviewees saw the benefits for the most self-sufficient job seekers to minimise the hassle and costs involved and to only access the supports they felt they truly needed (I1, I3, I6, I7, I8, I12, I13, I14, I15, I17, I22).

However, as noted above, they may also experience challenges. For those with lower levels of digital literacy, less consistent access to digital infrastructure or who are determined to be in need of targeted services, their experience of employment services (and more broadly employment as a whole) will likely be very different.

They may also experience isolation (I8, I10, I11, I15, I16, I22). The transition to digital could leave people feeling disconnected or alienated from their community. As Interviewee 8 said virtual engagement could “increase accessibility, but they also feel it’s not somehow not as real as face to face contact”.

Interviewee 8’s comment above highlights another theme that emerged. Our interviewees raised questions about the possible impact that differentiating between the two groups – the self-sufficient and those in need of more intensive services – might introduce. Face to face had benefits and costs. Digital also had benefits and costs. What worked for some, didn’t work for others but these needs and preferences were not always well aligned with digital literacy and access alone. It was these job seekers, those who might be able to self-service but didn’t want to, or who were digitally competent but lacked other soft skills, or those who might experience vulnerabilities or disadvantage but who were more comfortable or confident working in a digital setting, that raised some red flags for interviewees. As Interviewee 3 noted “there will always be some who don’t fit either of these categories, [they] maybe somewhat in between, and what happens if they

land in either? If they get a fully digital services, but actually they may need more contact? So I think that there will be this middle group that will, at least in the short run, lose something”.

Some of the job seekers who might be flagged as being in need of provider services, for example, could include people who might find attending appointments overwhelming, such as those with anxiety or autism (I14). Whereas young people might be found to be capable of self-servicing but “who lack the ability to navigate the bureaucracy. So the bureaucratic skills to know what you’re supposed to ask or what you’re entitled to and so on (I16)”. There are many possible categories that fit this ‘middle group’ that are likely to find the New Employment Services Model is not designed for their needs.

Impact on front line staff

Digital tools play a significant part in shaping the work of staff at the front line. This could include the day-to-day management of tasks, interactions with job seekers and recording data for the purposes of performance management. The interviewees in Interview 22 painted a picture of how computers now act as

a third person in the meeting. It’s the [job seeker], themselves and the screen. And I was fortunate enough to be able to sit in and observe some [of these] interactions, and they literally turned the screen around so the [job seeker’s] case is up there and they’re having a conversation about any issues with the case, you know, clicking on things or reading, like going through the [data] on the screen in front of them.

Describing the increasing use of computers at the front line of public service delivery, Bovens and Zouridis argue that public services have transitioned from being street-level bureaucracies into *screen*-level bureaucracies. Namely, bureaucratic encounters wherein job seeker interactions ‘always run through or in the presence of a computer screen’ (2002: 177). The impact this has on decision making is still unclear. Research has shown that the need to enter data into the computer changes the nature of the interaction. Front line service delivery becomes more administrative and transactional in orientation while opportunities for personalised guidance and therapeutic forms of support become crowded out by the priority of processing information (Marston, 2006; Caswell et al., 2010).

As noted above, under the drivers of digitalisation, some research has been done on how the information collected about job seekers – whether for compliance or profiling - may further alter decision making. Many interviewees stressed that this information was primarily intended as a decision aid (I3, I10, I11, I14, I15, I21). However, very little training was provided to staff about how to use this information to inform decisions practically (I3, I6, I10). In Denmark for example

They've just sort of developed the system and made a statement 'this is now supposed to be used' and what it can do optimally. But it's very different [in practice]. That's why I think there's no one in Denmark that actually has an overview of [how] this system is being used. It's almost like a black box (I10)

This lack of guidance meant that you could, and often needed to, adapt the system to suit your individual needs. In interview 22 a interviewee shared that:

one [of the staff] told me that they had a function where they would put a virtual sticky note on a person's online account to describe the vulnerabilities that that person had. To flag it to other people. But I mean, he said to me, that's not consistent policy. That's just what he likes to do, is to put a flag on this person's account.

In describing how the online journal was used in the UK Interviewee 9 revealed that:

this is where you find that people do different things, you know, as we know on the front line. Some people will just quickly scan the... messages at the beginning of the day. That's maybe the first thing they do, just to sort of check whether there's any information there even before they go to the sort of payment issues, you know, things that have to be sorted that day, whilst other people might, you know, leave the journal to later in the day and sort of deal with all the payment issues. So that is why this sort of interaction with this communication tool isn't always very clear. And so that is sort of reflecting that this journal was added in there because we needed a digital communication tool, but we're not really thinking about [its purpose and how it will be used].

These comments highlight the importance of considering both the behaviour and the technical aspects of design when developing a system. This requires having a clear idea of how the staff and the job seekers will use a system first, understanding the process. An interviewee from VDAB stressed the importance of this mapping because "it's very important to have your whole process [outlined] in a simple way before you give it to IT people that will make a mess out

of it and will have a lot more connecting dots and stuff" (I21).

In order to assess what additional value digital tools and decision aids make to front line staff it will be necessary for them to have a clear statement of purpose. Is the purpose of the tool to more effectively track compliance? Is it to provide tailored and personalised support? Is it to assist in communication? The digital tools introduced must be fit for purpose and in many ways, this has not been the case in the past. As was shared in interview 22, "we had some [job seekers] saying that the meeting was just, you know, filling in the [job compliance form], really just checking, have you done this and have you done that? It wasn't really, they weren't going beyond what was in the [file]".

Some had hopes that digitalisation, particularly procedural automation, would replace this type of menial work (I13). Now,

more of the traditional intake kind of work doesn't need to be done by the street level bureaucrat anymore. Traditionally, you would go into an office and you would speak to [the staff] and they would be typing out your forms as you talk to them. So it was a lot of data entry and fairly menial work. And then they would go into their filing cabinets to whip up some job posting cards and talk to you about that. So all of that more of low level support work is going away and the [staff] are becoming proper counsellors and they're becoming more consultants in the organization to help difficult cases and solve complicated problems. (I13)

This is certainly the guiding principle behind the Workforce Australia model. It is hoped that the staff delivering provider services will have more time and capability to support those job seekers with higher needs. However, there are also concerns that the focus on employment for those job seekers may make it challenging for job seekers, particularly if benefits are aligned with mutual obligations.

[Employment service providers] have become dominated by people who are disabled, sick or disabled, people with mental health problems and people who are unemployed are a much smaller proportion of those who have to go to the office. So the whole system has changed and its function is changed and now people are saying it to such an extent that ... third sector people we were talking to and [staff], they said that the job matching or help with getting a job shouldn't be what [employment service providers] do... the whole job search function or support for getting back to work shouldn't be done by the same office that can take away all your

money and cause you to lose your home, you know (I8)

I think that the problem with the employment services is that... they had the kind of divisions formally between social policy and employment services. But now, [there is] this idea that you [can] solve a social problem with just... if they get employment you can solve all their social problems. And that means, you've changed the content of the employment services in a very radical way, which means that you cannot just switch the human contact with some kind of digital services as this social thing becomes very complicated, all these social problems that are involved in it now. (I11)

It is also concerning for staff if performance measures for these job seekers are aligned with employment outcomes. The argument that removing the most self-sufficient job seekers from the case load will free up time and resources for the harder to serve is common (I15, I18). However, time is only one resource. Capacity, capability to deal with complex job seekers is about more than just time.

As job seekers' needs become more complex, the demands on staff will also change and it is, as yet, unclear if the system is set up for that. A critical issue in the context of the Australian employment services system, as well as other liberal welfare states, is the competencies and skills of existing front line staff (Considine et al., 2015; McGann, 2021; O'Sullivan et al. 2021). Qualification levels have declined over time, along with the age profile and level of experience of front line staff. Most recent estimates suggest that only a quarter of front line employment services staff in Australia have a university level qualification, while fewer than half of front line staff have more than five years' experience of working in the employment services sector (Considine et al. 2015).

Many front line employment services staff lack formal training in areas relevant to the personalization of support such as employment guidance, social work, vocational rehabilitation, or community development. Instead, they are recruited to work in employment services from sectors such as retail, hospitality, tourism, sales, and other customer-service oriented sectors (O'Sullivan et al. 2021). While workers from such sectors may have soft skills in building rapport and relationships with job seekers, whether they have the technical competencies and professional knowledge to substantively tailor support to address complex

employment barriers is far from certain. This concern is further amplified by the rate of turnover in front line employment services staff, which is estimated to be in the region of 30 per cent of employees each year (Maguire, 2017).

Impact on employers

Overall, when asked, few interviewees were confident they could speak about the experiences of employers engaging in the system. This reflects a general gap in the research about how employers interact with PES more broadly. Interviewees from VDAB did speak about some of the service improvements made. For example, the desire to make the process of advertising jobs easier was the most common experience interviewees mentioned (I17, I18, I19, I20). Using a digital system has not always been an improvement on this. As Interviewee 7 notes,

I've seen examples ...where they spend a lot of money on software for vacancies, but they don't have a good enough link to employers, so they will not get enough vacancies and pushing it to the employers and saying you have to put in all your vacancies also doesn't work because the employers, if they don't have a good relationship to employment services, they will think hey, I'm not going to bother doing it.

VDAB in particular had made significant strides in making their service appealing. They had opened their service to all job seekers and implemented widgets, apps and competency-based matching to drive engagement of employers. VDAB also support employers to set up job ads, but the employer has the choice to have the job seeker apply through VDAB – in which case it is automatically registered as an application for their profile – or to contact the employer directly and register it manually. VDAB systems also allow employers to change what competencies they include in their advertisement depending on how many potential applicants are revealed in job matching portal. This allows them to assess the potential job pool before even posting the ad. This means they can determine prior to even posting the job advertisement, if they have a decent employment pool to choose from.

Outside of this however, the relationship building between employers and providers was often presented as a relational experience still best done face to face. It was part of building relationships and trust (I14, I3, I6, I9).

5. Challenges for digitalisation

There were many different challenges that interviewees raised in regards to the digital transition. Some are touched on above and were closely aligned to what has emerged in the research over the last decade. We have focused in on three overarching themes that these challenges fell under: digital access and literacy, bias and transparency.

Access and literacy

The first major challenge to implementing digitalisation – in any form- was access (I6, I8, I12, I15, I17, I22, I23) and literacy (I1, I5, I8, I14, I15, I17). These were sometimes linked to engagement given that there is a far greater demand on job seekers to engage and self-motivate in a digital system (I5).

Several interviewees noted that digital access and literacy was a concern.

there's quite a number of people who would not have access to Internet or would not be able to run an app because of age, because of intellectual abilities or also because they don't want to (I7)

There's a lot of critique of [digitalisation], which is about, you know, if you're going digital, then what about all the people who don't have access? Who either don't have access to devices of a computer or a tablet or a smartphone and, you know, where will they access it? How will they access it? How can they afford broadband or Wi-Fi or data? And there's a lot of critique which is legitimate and also about language and literacy issues (I8)

We know that digital exclusion remains a concern in Australia today, as highlighted by the COVID-19 pandemic. Hurdles to accessing the internet were found to be significant, particularly in rural populations (Faraj et al., 2021). In 2020 it was revealed that many more low-income households experienced digital exclusion than those from higher income households. Overall, Australians with lower levels of income, employment, and education are significantly less digitally included (Thomas et al., 2020, p. 5). Moreover, as digital engagement continues to expand, including in relation to welfare-to-work, the digital divide is 'getting deeper' meaning that most people are connected, but those who are not, are excluded in a range of highly significant ways (Ewing 2016). This meant that during the crisis the impact of lock down was greater for those who were already experiencing disadvantage.

However, Interviewee 7 felt it was important not to overstate the risk.

It's not rocket science. I mean, there is a lot of discussion about digital skills. And, of course, you need to have a computer. You need to have a of kind of basic understanding of how it works also on a smartphone. But most people do, actually. I mean, it's not you don't need to be you know, you don't need to go very deep into I.T. to understand how it works. And I mean, there are some in the Netherlands, for example, there are apps that make it very easy to deal with that. So, yeah, I mean, that said, of course, there's quite a number of people who would not have access to Internet or would not be able to run an app because of age, because of intellectual abilities or also because they don't want there.

Mutula and Mostert (2009) argue that there are some clear categories of service users that are at risk of exclusion: service users who are less comfortable with using digital technology; users who experience a disability-related barrier to using technology; or users who experience a communication barrier such as speaking a different language from the one in which the information is presented. O'Sullivan and Walker (2018) raised concerns for remote Aboriginal communities in particular, where language, access and cultural barriers create significant challenges in accessing digital services.

Given that these service users may already be marginalised in other ways because of these same attributes, the introduction of digital servicing may accidentally exacerbate the existing exclusions facing specific service users. In the UK some of these issues have been addressed, at least in part with third sector services, such as Citizens Advice and 'Help to Claim'. In Denmark and Flanders there were opportunities to engage with phone or online support. However, there are clearly risks for those who don't seek additional support or who have temporary challenges. This can lead to inconsistent outcomes and favour individual service users who are more willing to proactively demand to consult a human public servant when a digital system has not worked well for them. Hansen et al. (2018) found that there is a divide emerging in the accessibility of public services, based on the digital literacy and self-advocacy skills of the service user. These are significant concerns that remain largely unaddressed in the New Employment Services Model.

Bias

Unlike access and literacy, which impacted most modes of digitalisation, the risk of introducing bias was generally reserved for concerns about AI and

algorithmic modelling, profiling in particular. The issue of race and ethnicity was particularly fraught in Denmark (I1, I5, I6, I0). This is supported by the research into AI and algorithmic decision making. As Desiere et al. (2019) note

automated decisions are as good as the data used to inform them. These data are representative of the past but not necessarily of the present or the future. Systematic biases can remain unnoticed and amplify over time (p. 24)

Governments use social profiles, categorisations, to determine and target levels of support to citizens. These categorisations can become problematic when the targeting risks further embedding existing biases and inequalities, particularly “when profiles themselves are based on data that are a result of structural inequalities, such as structural racism” (Henman, 2019, p. 76).

Digitalisation is often framed as a way of reducing human errors that can occur when decisions are made by humans, but computer/system error is also possible, and can have strongly negative effects. These effects can be particularly problematic if it is difficult to correct or override a computer-originated decision. The necessary transparency of data to address this is still often not fully addressed. The question of whether individuals have the right to know which pieces of data about themselves is proving decisive in specific decisions is legally unresolved in the Australian context.

In addition to the inherent bias of an algorithm, there were other ways this data could lead to biased decision making. In Flanders the use of a profiling system was seen as carrying the risk of introducing bias if job seekers were put into a stream (I21). This concern was based on a trial they ran where staff were provided with profiling data. When the staff were able to see the risk profile, based on a red, yellow or green allocation, they changed their behaviour.

in the end, our conclusion was that that are not ready for this yet. There's always a bias. We took a lot of time to say to all those [staff] hey, this is a prediction, it's always you that gets the last call. But too many were like, oh, it's red. I need to ask all the questions that fit a red situation, you know, so that they were biased, simple as that.

Interviewee 14 similarly felt that profiling job seekers risked introducing bias for both the job seekers and the staff.

when you put people in red, amber, green. High, medium, low, or whatever we call it... People don't

know how to put people into groups without [levels] and that's the problem. The words that they use are not great. So if, for example, if a customer is identified, on the computer, because it's digital, that they're red, not only does that effect the mindset in a customer, which hopefully the customer will never know if they've come out red. It's the mindset in an advisor. Even the computer says they are not going to get a job... and we are in a target driven environment. We can never get away from that. And payment by results....

The idea that bias is introduced by profiling, a system intended to better service job seekers in need, highlights how important it is to understand the practical implications on behaviour that organisational practices may have. As Workforce Australia will divide job seekers along two lines – those who are able to self-service digitally and those who will receive provider services – it will be important to understand how biases are perpetuated in this environment. For instance, how the categorisation of a job seeker as a person incapable of digital self-servicing will shape how that job seeker is subsequently viewed by her employment consultant?

Transparency

Linked to these concerns about bias and discrimination were worries about the transparency of data and the collection of data. In Denmark there were concerns that people participating in the development of online profiles for job matching were unaware it was voluntary or how it was using their data (I10). The information about how the data was being used was also commonly opaque (I1, I12, I3). As noted above, several European interviewees cited the GDPR as a key element of shaping how data was used. Sometimes this was a positive reflection (I1, I10, I18, I21), encouraging governments and service providers to be conscientious of data stewardship. Other times interviewees reflected on the frustrations of being limited by red tape (I5, I16)

An important lesson from the research is that the antidote to opaque practices is not necessarily the provision of more information or more transparent information. It needs to be clear how data is being used and the information needs to be useable and actionable. Persson (2018) writes about the ways that private firms can use information overload to obscure hidden costs or unwelcome uses of data. We see this in the concerns raised above about the system in Denmark. The format as well as the content of any information disclosure is essential.

6. Opportunities for a better digital system

In addition to reflecting on the challenges of digitalisation, they also spoke about ways that digitalisation might be introduced that would offer a greater opportunity of success. These boiled down to spending the time and money making sure the system is fit for purpose. This involved ensuring that the technical aspects, such as data quality and data infrastructure, are well designed. That staff are given direction and training in how to use it and that it is built on customer and service-provider need, as well as the needs of government. Practically this means that the system needs to be adaptable to incorporate the broad and complex needs that emerge at the front line. I will explore each of these elements in more detail below.

Strong data quality and infrastructure

Most of the interviewees' comments reflected on the challenges represented by poor data (I10, I12, I13, I17). In cases where a lot of data was held, such as in Denmark and Flanders, it was seen as important to view data as the 'key to success' and treat it as a significant and valuable resource (I3, I5, I6, I21, I23). In Denmark much of this data is made available for the purposes of research as well.

Interviewee 7 noted however, that good data alone is not enough, having the right infrastructure in place was also essential. High quality storage and warehousing in particular for Interviewee 7. Infrastructure sometimes also referred to having the back office issues sorted out to enable a digital transition (I17, I21). Interviewee 13 warned that for many PES

it's very tempting to build a very shiny website or a portal or even, you know, I've been in discussions with PES... who are like, we want a chat bot because it's new and it's shiny and it shows us as being modern. But at the same time, you typically have the biggest challenges in your back office processes. You can also gain the most in your back office processes because that's where, you know, you, you will have a lot of system errors and you will have a lot of legacy problems and, you know, non-integration issues. So start by designing your processes, redesigning your processes in the organization, in your back offices, because that's where you're going to see the most return on investment and it is pretty much always, yeah, it's needed to improve service delivery in your front offices as well. So start there. Redesign your back office.

Another important factor to enable successful digital transitions was managing legacy systems. Interviewee 2

first flagged this, noting that countries with less digital infrastructure such as India, Latin America and other developing countries, were jumping ahead in some ways because they were not limited by their existing IT systems. Interviewee 13 then warned that

one of the bigger challenges that we're seeing here is that of legacy. And that's something that the [less developed] countries see as much less of an obstacle simply because they have less, because if your entire process is still paper, you can start building new systems from scratch and you can put them in the cloud. And that's a good position to be in. Whereas in [developed] countries... they've been digitizing since the 1960s and they have big mainframes in a basement somewhere and nobody really knows what those machines are doing. All they know is if they switch them off, we're going to have a problem. I have to say, there was a, you can probably Google this, the IRS in the United States has the same issue. They're still training COBOL engineers to maintain old mainframe systems from the 60s and 70s that need to be maintained. And dealing with that kind of you know, you have five or six or seven generations of technology build on top of each other. And it's one big spaghetti mess and nobody really knows how it works. And it would be much easier to start from scratch. And certain governments are considering doing this. But obviously it's really hard to deal with legacy. So that's a really big challenge.

Getting the technical part right included more than just building the new system. It involved thinking carefully about the past - how it would fit with existing systems and legacy systems – but also the future – what data is needed and how can we invest in it to create value.

Needs-based design

When Interviewee 13 mentioned the push for the new, exciting thing, they flagged another issue that would be described by some of our interviewees. Sometimes these systems were not designed to address specific or existing challenges in the system. They were not designed to meet a need. Interviewee 17 put it particularly well when they stated that "the general rule [is] that trying to bend digital services around the old model is not an effective and efficient way of doing this. You need to think about what you want to achieve and then what are the digital tools that can help to do it". Interviewee 3 also felt that this need should, ideally, be driven from the bottom-up, rather than a top-down drive for efficiency. If you "[p]ush from below or from the municipality [level] and couple it with an agenda of job seeker empowerment then I think you could really

gain something". Alternatively, Interviewee 13 shared the work being done in France which involved running an innovation lab and creating a marketplace for

anyone who has an idea to create new services or applications or products to help job seekers or benefit seekers in their customer journey, which is a really interesting sort of model to outsource part of your processes to the market and let the market figure out what's best while retaining control over quality and that kind of stuff.

Interviewee 5 shared an illuminating example of an intervention that was not needs-based and ultimately cost a lot of money to tell people something that was of limited use.

One of the ways this vast data availability was used was in a tool that was meant to be used at the front line. [This tool] indicated, based on the education level, the social background, the whatever of this client, does this client have a very high likelihood of getting quickly into employment? All the people who developed this tool were very excited [but] the front line workers said, 'Well, if it turns out green, I sit there with a client and if they haven't found a job all I can say to them is that you ought to have found a job because everything points in that direction. And if it turns out red, I can say to you, well, it looks really bad, but the jobs are the same. You have to go and get one. So it was completely unhelpful... it was dismissed after a year or so, maybe even less, because it was completely useless. And I think that just illustrates a very central problem in the whole digital development, is that the people who developed these tools are so far away from the practice that they think they develop something that is genius, and it turns out to be maybe possibly helpful but sometimes also, you know, even more burdensome than it needs to be.

Training provided

The importance of providing extensive and ongoing training to both staff and job seekers in how to use the model and/or the technology effectively was mentioned by multiple interviewees when considering how to use digital tools more successfully (I7, I12, I13, I17, I23). However, as mentioned earlier, very little training is currently provided in how to use the results to inform decision making. They are often just trained in how it works in a technical sense. This is assuming the tool is even beneficial, which, as the quote above highlights, may not be the case.

Adaptable to context

Ultimately a common thread was that any digital tool or innovation needed to offer flexibility, and adaptability whether that is the technology itself or how it would be used. Interviewee 11 spoke about how centralisation and the use of research evidence had led to significant constraints at the front line. The idea of 'what worked' could just as easily lead to problems for individual cases when they contradicted the case workers own discretion and best judgement (I10). The evidence appeared to demonstrate that regular and frequent meetings were valuable in achieving outcomes, and having that information was useful, but once it became a *requirement* it became problematic (I1, I5). This brings us back to the concerns about the loss of discretion at local or advisor level and the demand for more central control.

Ultimately it came down to how the different modes of digitalisation shaped and changed the service for all parties involved. Was it designed to increase surveillance and central control, to cut costs? Or was it intended to act as a tool to empower job seekers to have more agency, autonomy and control over how they engaged with services?

Conclusion

Workforce Australia is in its infancy, but the plans for digitalisation will break new ground and go further than many other nations' reforms to their PES'.

Clearly there are costs and trade-offs that need to be considered. Our interviews with those further along this journey point to ambiguity about the meaning of digitalisation. This ambiguity sees the concept fall into several categories: virtual engagement; procedural automation; and AI and algorithmic modelling. Each of these are quite different approaches to 'digitalisation' of services and leave diminishing amounts of discretion to those engaging with these systems.

Like any reform, it is how digitalisation is used that matters. Crucial is the underlying reasons and values at work, which are not always easy to observe. In addition, it is not only what the reforms are aimed at achieving that are important. This is closely linked with what is measured and the consequences of performance measurement for providers, who take their cue from these important signals about what matters for payments.

The opportunities for digital are often linked to using it to design a system which involves empowering job seekers and creating a system that can be adapted to complex circumstances. However empowering job seekers is not measured, nor part of service provider performance. Getting a job is. Getting off payments is.

Our interviews with international experts suggest that while this may carry some benefits, there are also very significant risks that need to be carefully monitored and managed. Principal among these are digital exclusion,

bias, and a raft of unintended consequences. There is also a big difference between being able to do something online and being forced to use this mode when you are not comfortable with it, or capable in using it, or do not even have reliable access to digital equipment and networks. This is an important point for Workforce Australia.

Face-to-face is available but will digital job seekers be sufficiently supported to access them when needed? There is also limited support for providers to deliver that kind of service to predominantly digital job seekers in the current model. The same is observed for employer engagement in this new digital system.

This report is the first stage of a multi-year research program which will track the implementation of the Workforce Australia using several different methods. In addition to a survey of front line staff, the project team will be conducting more in-depth interviews and focus groups, and establishing an industry forum to engage with and learn from employment service providers. The whole research program will result in much needed information on the consequences of this latest round of welfare to work reform in Australia, placing it in an international context, and drawing insights from it for future policy making.

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