



'Invisible Bystanders'

HOW AUSTRALIAN WORKERS EXPERIENCE
THE UPTAKE OF AI AND AUTOMATION

UTS – Human Technology Institute

MAY 2024

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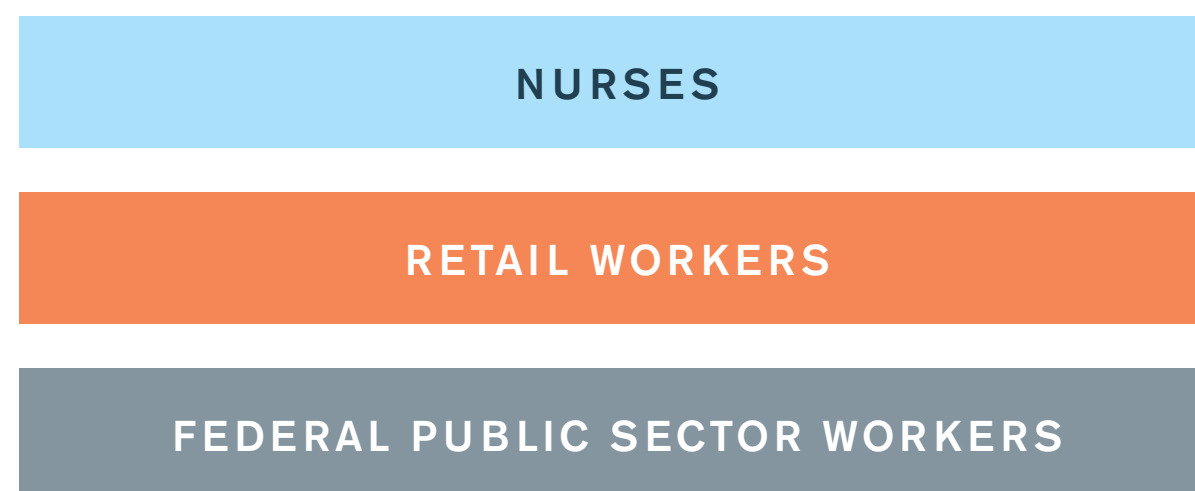
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Background and methodology

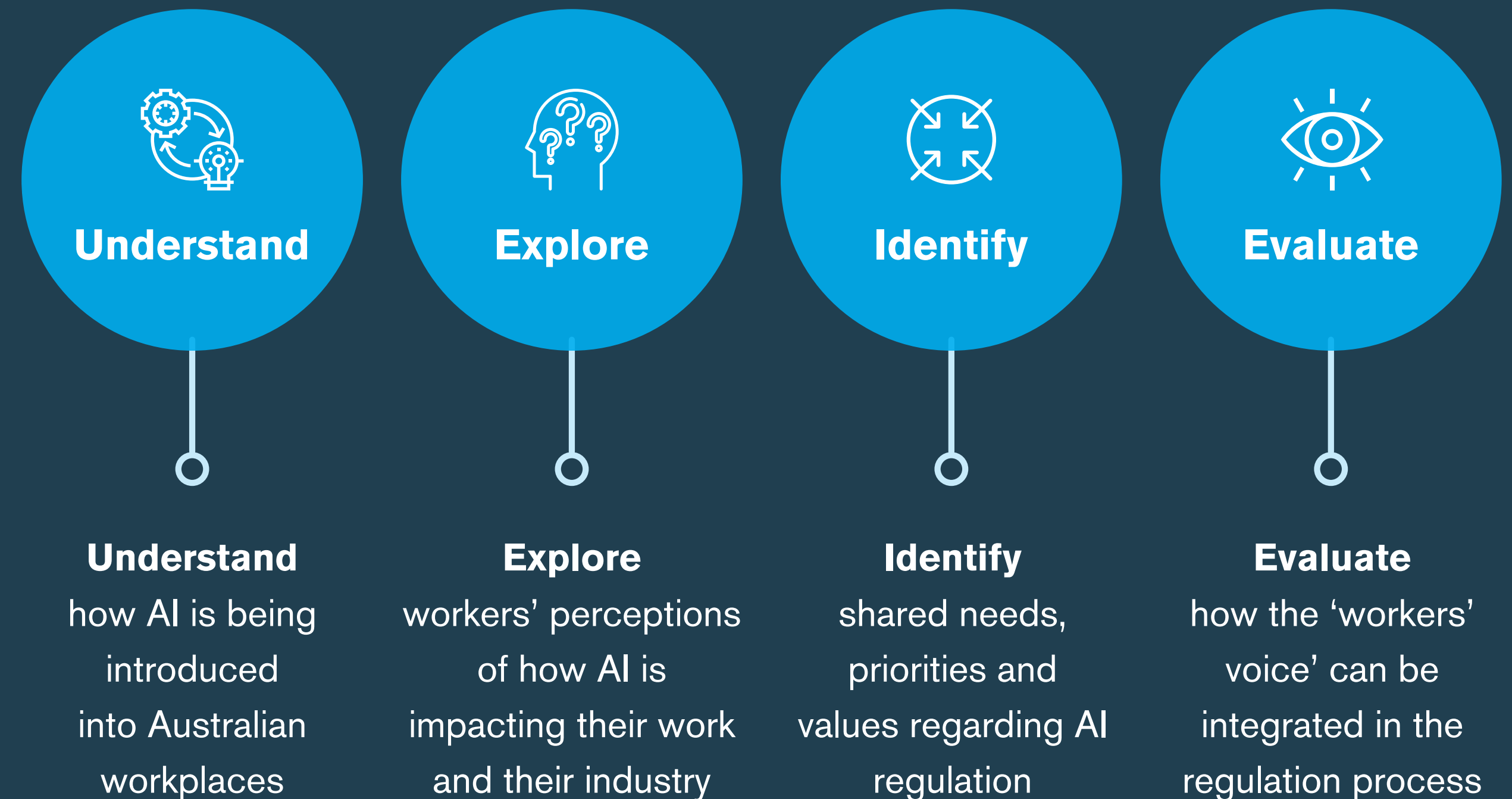
Background and objectives

The UTS Human Technology Institute commissioned Essential to undertake a series of deliberative worker studies as part of its AI Corporate Governance Program.

HTI selected three target industry cohorts for in-depth evaluation:



Participants were taken through a process of education, reflection and deliberation, with all phases of the process informing this report.



Methodology - Overview

1 STAGE 1

STAKEHOLDER IN-DEPTH INTERVIEWS

Target audience: Stakeholders including union representatives for the target industries

Fieldwork dates:
December 2023 - February 2024

Sample sizes:
n=4 per target industry (n=12 total)

Recruitment:
45–60-minute interview facilitated by Essential Research via zoom

NURSES	NSWNMA, ANMF, practicing nurses x2
PUBLIC SECTOR	CPSU x2, public servants x2
RETAIL	SDAx2, retail workers x2

INITIAL EXPLORATION OF TOPIC TO INFORM DEVELOPMENT OF RESEARCH MATERIALS FOR STAGES 2 & 3.

2 STAGE 2

ONLINE OVER-TIME FOCUS GROUPS

Target audience: Workers in target industries

Fieldwork dates - OOFGs

NURSES	12th - 25th of February 2024
PUBLIC SECTOR	19th February - 3rd March 2024
RETAIL	11th - 24th March 2024

Sample sizes:

NURSES	n=29
PUBLIC SECTOR	n=28
RETAIL	n=25

Recruitment:
3x 14-day OOFGs via text-based discussion board including a journal task every day participants work a shift

ALL:

- Mix of age, gender, location
- Mix of union members and non-members
- Mix of roles & levels of seniority/years of experience

NURSES	Inclusion of some nurses who work in private hospitals
PUBLIC SECTOR	Mix of departments
RETAIL	Mix of Sales, Distribution, Warehousing

GAUGING HOW PARTICIPANTS ENGAGE WITH THE ISSUES AND HOW THEIR ATTITUDES AND OPINIONS CHANGE OVER TIME.

3 STAGE 3

LIVE ONLINE FOCUS GROUPS

Target audience: Workers in target industries

Fieldwork dates - Live groups

NURSES	7th March 2024
PUBLIC SECTOR	14th March 2024
RETAIL	4th April 2024

Sample sizes:

NURSES	n=14
PUBLIC SECTOR	n=13
RETAIL	n=12

Recruitment:
90 minutes live discussion via zoom

ALL:

- Re-recruits from the Online Over-time Focus Groups**

DEEP-DIVE INTO PARTICIPANTS' EXPERIENCES IN A FACE-TO-FACE-SETTING.

THIS REPORT CONTAINS FINDINGS FROM ALL RESEARCH MODULES AND TARGET INDUSTRIES.



Detailed methodology

- Stage 2

2

Participants were asked to log into an online discussion board over the course of 12 days, to:



fill out a work journal every time they work a shift



complete 5 activities spread across the 12 days.



WORK JOURNAL TASK

For the next 2 weeks, please fill out this journal task every day that you go to work. This is a quick 2 to 4-minute task!

- Tell us a little bit about your shift/day at work today. E.g. What were your main tasks throughout the day and were there any particular moments that stood out to you?
- What, if any, AI or automation did you encounter or use today (at work, in your private life)? Tell us about it!
- How did the presence of this AI/Automation impact your role today?
- What about your colleagues or your patients/customers?
- What would have happened if the AI or automation was not present today? How would that impact your role?



5 'ACTIVITY DAYS'

#1

Current definition & understanding of AI and automation?
Initial thoughts on benefits & risks?

#2

Experiences with system changes and worker consultation to date

#3

Experiences and expectations of patients & customers

#4

Detailed evaluation and discussion of potential scenarios

#5

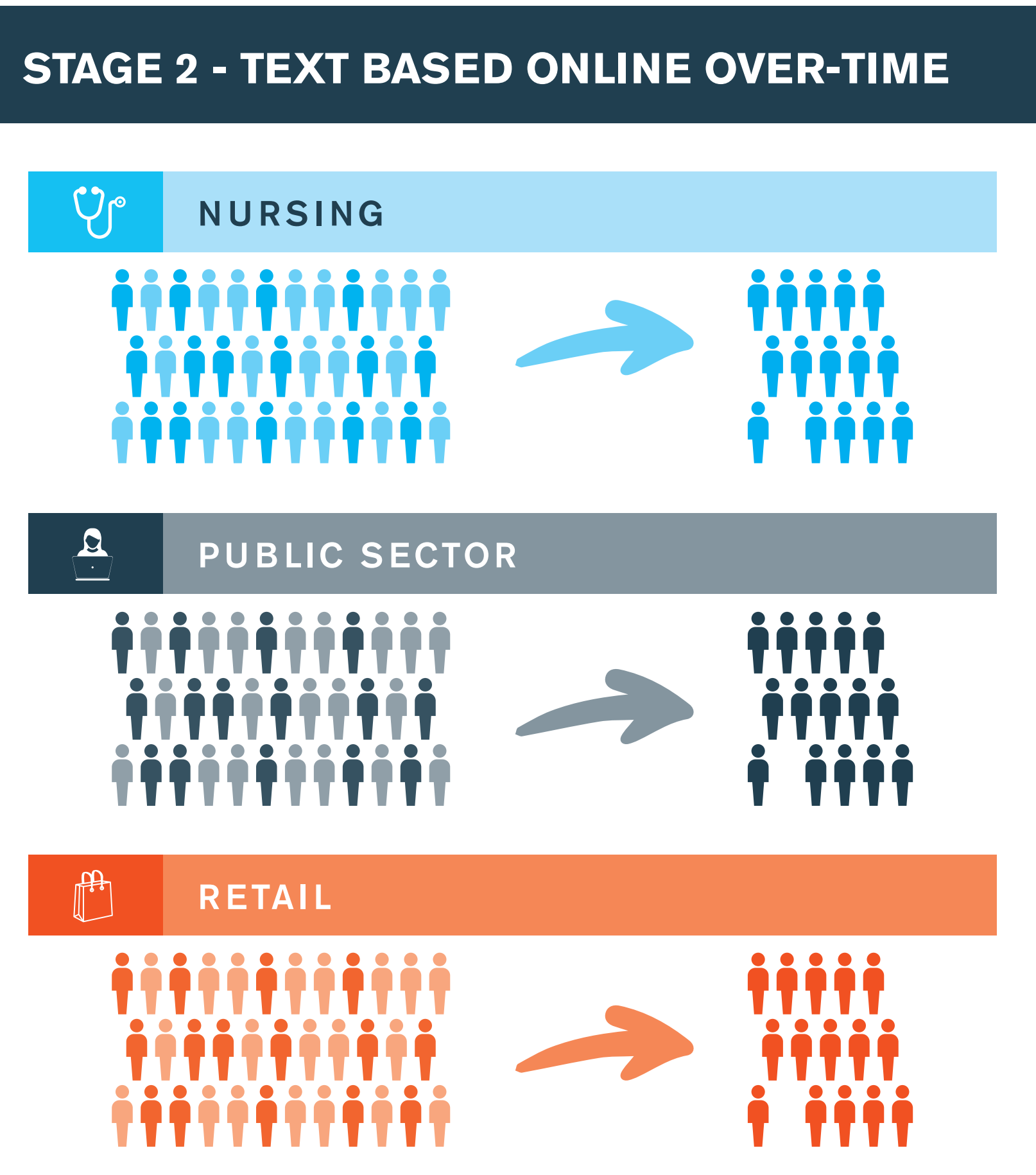
Discussion of additional scenarios
Reflections on potential shifts in attitudes and perceptions over the course of the research

Detailed methodology

- Stage 3



We identified participants of stage 2 of the research who delivered particularly interesting insights and perspectives on AI and Automation in their target industry and invited them to participate in stage 3 (live groups conducted via zoom) to explore their opinions in further detail.



STAGE 3 - FACE-TO-FACE ONLINE

- **Reinviting the same participants** to participate in follow-up live online focus groups (conducted via zoom) meant we were able to 'meet' participants face-to-face and **gain a deeper understanding of their thoughts and insights** provided in stage 2.
- It also meant that **participants had already engaged more deeply with the topic** and thought in detail about how AI and Automation are present in their work lives.

2

Executive Summary

Executive Summary

Australian workers are invisible bystanders in the adoption of Artificial Intelligence (AI) and Automation into their work lives.

Our study of workers in nursing, retail and the federal public service show there is currently low understanding of AI, low awareness on the ways it is being deployed and low trust that it will be implemented in the interests of workers or the public they serve.



The failure to include workers in the development, training and deployment of these systems is creating significant barriers to the technology being embraced.

- In nursing there are deep concerns about abdicating human responsibility in the care of patients.
- In the federal public service Robo-debt has created skepticism that this recent negative experience is standing in the way of further automation happening.
- In retail lived experience of check-out automation and customer surveillance has fundamentally changed the nature of work.

Our immersive, reflective research invited participants to audit the way the technology was being used in their own workplaces, and then reflect on the applications.

The findings highlighted the value workers could bring to the development and implementation of technology – if they were asked.

Workers understand that we are in a transformative period in the interaction between technology and society and are not inherently opposed to the adoption of AI in their workplace:

Many understand that the ways in which AI and Automation can enrich our lives are immense. Increased efficiency and lower costs, huge improvements in healthcare and services economy - particularly around streamlining bureaucratic processes and lowering administrative burden.

Where these tools are used to assist, enhance or complement human intelligence and labour, there is genuine enthusiasm for adoption of these tools.

BUT, workers identified a myriad of risks that should be thought through when AI systems are developed and implemented, specifically in relation to privacy, protective data security, operational capacity and ethics more broadly.

Executive Summary

The research illustrates that workers have a clear sense of where the ethical red lines are.

In each of these disparate industries, workers identify areas where humans must be accountable for decisions which impact the public, whether that be the clinical decision-making about patient care, allocation of government payments or support for high-needs shoppers.

Where technology was seen as replacing, rather than enhancing work there was natural skepticism, as well as an expectation that workers who are training these systems should be separately compensated for this work.

Embedding human safeguards into the design of AI and automated solutions will be essential in developing technology which improves worker well-being and productivity, rather than merely reduces costs.

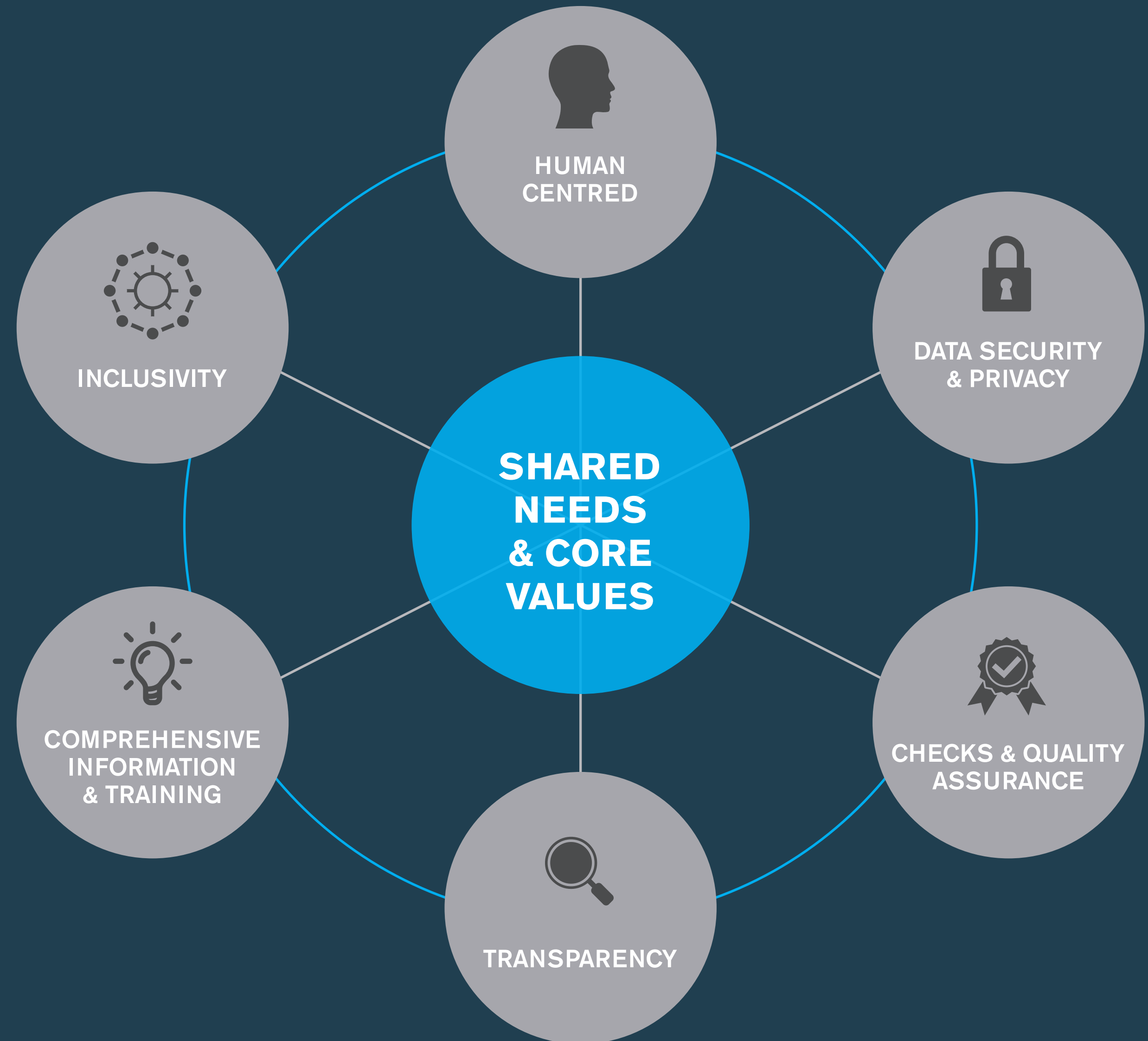
Workers do not currently feel like they are part of the innovation – technology is imposed on them, not designed with them.

- Technological change and integration of new AI based or Automated systems is communicated poorly – either by edict or rumour.
- Expertise around AI and Automation is sequestered in 'IT departments' rather than socialised within organisations. Many workers in the research didn't know where to go with questions or to seek information about AI and Automation within their organisation.
- Training is cursory, with online video modules the most common 'teaching' tool.

The research reinforces emerging theories that the best technology is worker driven - not just via surface-level consultation but through in-depth co-design with those who will interact with these new systems first-hand everyday.

The research identified six core values and needs

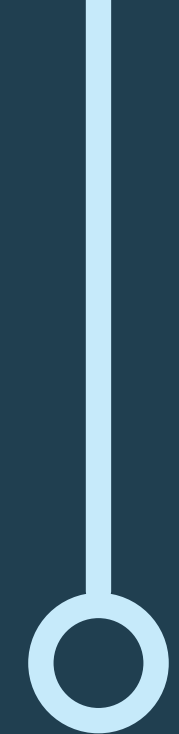
For further information and ideas how organisations can address them, please see section 8 of the report.



Implications of findings

This research suggests a range of policy opportunities for further exploration (these are explained in further detail in section 9 of the report):

- 🔍 **Industry AI Workers Councils** – where worker voice is embedded in innovation and change is negotiated.
- 🔍 **Positive obligations** on employers to take all reasonable steps to avoid harm – akin to WHS requirements.
- 🔍 **Limits** to how and why workers are subject to ongoing surveillance.
- 🔍 **Staffing guarantees** – such as nurse: patient ratios to ensure technology is deployed to improve work not replace workers.



Finally, those workers who participated in the project came away with a constructive mind-set informed by a deeper understanding. Extending this sort of engagement work across industries at scale would have a material impact on improving the quality of workplace AI.

3

Initial perceptions and understanding of AI and Automation

Initially, there tends to be low levels of understanding and awareness of AI and Automation – particularly in a work context

Most research participants have predominantly heard of and considered AI that they encounter in their private lives (e.g., ChatGPT, algorithms which underpin search engines, smart home devices or chatbots). They generally haven't given much thought to how AI and Automation are present in their workdays.

Some note that considerations about AI and Automation are not a priority due to the many other challenges and pressures workers are dealing with daily. There was more awareness among stakeholders – it is worth noting, however, that most of the stakeholders volunteered to take part in the research due to a pre-existing interest in AI.

“
Nurses are definitely exposed to it at a lower level. And then I'm aware that work is being done to advance the amount of role of AI in health. So, I know that nurses are definitely using, probably not realising that they're using machines with AI that are equipped with AI capacity at the moment.
STAKEHOLDER - NURSING

“
The nurses I know, they're just trying to get through the shift with in between being abused, assaulted, covering for sick leave, holiday leave. I don't think that any of them are being kept up at night worrying about AI.
STAKEHOLDER - NURSING

“
I'd say in the retail space people do have some concerns about AI and automation where it leads to aggression or abuse inside workplaces. So the issues intersect but at the front of their mind would be the abuse not the AI or what caused that.
STAKEHOLDER - RETAIL

There is little to no transparency for when and how AI and automated systems are being used

This became increasingly obvious over the course of the research as participants became aware of more and more examples and ways in which AI and Automation is present in their daily work routines.

They note that this also often means that no explicit consent is obtained from workers, customers or patients when AI is involved in the delivery of service or care.

“
I don't think many patients realise how much is involved. There is no clear "consent" obtained when it comes to using technology and their details, but rather an implied consent given its government public health and people don't know otherwise. Technically a patient really couldn't deny the use of computers to be treated.
”
NURSING

“
It isn't transparent to the patients. The type of healthcare delivered is received with very little discussion. If you sign up to get treated in hospital you have little say about the mode of healthcare you receive. This also relates to automation and AI.
”
NURSING

“
We don't get updated about anything. And if it is, it's normally a rumor of what's going on. We don't actually get told what it is, how does it work, how's it going to affect us, how's it going to benefit us.
”
RETAIL

Comments show that for many workers the lines are blurred between what constitutes technology, digital devices or software and what is considered AI or Automation

When asked about use of AI in their workplace, participants frequently describe tools that aren't considered AI or Automation in the conventional sense (even though some of these tools can be enhanced by AI).

NURSES

Examples include performing ultrasounds, live streaming video feeds e.g., of babies in Neonatal Intensive Care Unit (NICU), ECT machines, Holter monitors, barcode scanning for inventory purposes, swipe cards etc.

PUBLIC SERVANTS

Some mention the use of Microsoft Teams, Excel, autocorrect functions in Word and Google, etc.

RETAIL WORKERS

Barcode scanners, QR codes, digital ad displays, video calls, sharing live location data, using internet and emails etc.

!
This further reinforces that workers are often unaware or uninformed when they are using AI based or automated systems.

“
It's very blurred for me... I just, I'm trying to go to work thinking, "Now is that just a normal little machine thing, it would be easy going? Or is that AI?" I'm very confused by it. I don't know what's what.
”

NURSING

“
I have found it really eye-opening because I had no idea out there what was already AI and automated versus standard advances in technology. That's where that blew my mind was the difference between those two things. And I am still learning, still trying to understand what's AI and what's not.
”

RETAIL

While participants expect work patterns to change, most don't perceive AI and automation as an immediate threat to their job security

Nurses and public sector workers in particular, tend to believe that their roles involve a human element which cannot be replaced by an AI powered or Automated system.

While they acknowledge that certain tasks will likely be outsourced to AI and Automation and that the number of staff required to cover any given shift or task may shrink overall, they aren't necessarily concerned that it will impact them personally. They believe that admin, lower skilled or more junior staff are more likely to be made redundant as a result of increased uptake of AI and Automation.

There were higher levels of concern about job losses among retail workers.

“ I think it will minimise the amount of people working in each sector. I do also think it will change the functions of employees. However, I strongly believe that there are things that AI just can't do, and human response or emotion is necessary. **PUBLIC SECTOR** ”

“ My role is in public health and requires a level of critical thinking, humanity and discretion you probably can't get from AI at this stage. It's also quite complicated, and not much is documented that AI could learn from and then use to do my job. It's other more junior levels, or for roles in communications that I would worry about. **PUBLIC SECTOR** ”

“ I don't see AI as having the capacity to replace nurses in terms of delivering the art of nursing, which is caring, empathy, all that stuff. So I don't see it as something we need to be terrified about at all. **STAKEHOLDER - NURSING** ”

“ I feel very replaceable and vulnerable as the barrier to entry into my position gradually gets lower, the more AI picks up. **RETAIL** ”

Retail workers are more likely to think that AI and Automation can cause mass job displacements in their field of work



RETAIL

They believe there is a high chance that machines will be deemed capable to perform the majority of their tasks in the future.

Most are very concerned what it will mean for high needs customers, and society more broadly, if less and less day-to-day activities involve human interaction.



I am very concerned it will eventually take over our jobs once AI is improved and accepted by all customers. It also stores a lot of our personal information which will create more security breaches.

RETAIL



My biggest concern is if AI or automation totally takes over and there are no longer main lane registers open or little to no human interaction with customers anymore. This would not only be bad for staff as many would be out of work, but also for the customers that need or want human interaction.

RETAIL



Mostly the potential of AI causing people to lose their jobs and doing things better than humans at some point.

RETAIL

Many acknowledge that the types of people who will be attracted to their industries may change as a result of increased dependence on AI and Automation

Participants say that if the focus of their work shifts away from authentic social interaction and human-centered delivery of service and/or care, people with different skill-sets and characteristics will likely enter the workforce.

There is some apprehension around what it will mean if jobs and roles that have historically prioritised human service delivery suddenly attract people who don't naturally gravitate towards social roles and potentially lack skills like empathy, compassion, EQ, active listening, verbal and non-verbal communication, etc.



I think it would affect the type of people who have come to nursing now. It might affect the type of people who are attracted to it in the future who don't come to nursing for that satisfaction from providing good care.

NURSING



I think our workforce would have to be tech-savvy. I think the people who work alongside AI, where AI at some point has to spit it out to a human, the human needs to know what's happened. They need to understand how that algorithm has worked stuff out. For my department, we are content experts. We are not IT experts. So for many of us, 95% of us, that would be a massive skill up. We're medically trained, we're nursing trained, we're clinically-trained people. Having AI and then having to understand AI on top of that is pretty much impossible.

PUBLIC SECTOR

Some have specific examples where reliance on AI and automation has led to incorrect or bad outcomes



We use an automated system that generates a list of products that need to be replenished for our stock levels to be at a healthy level. This alerts us what needs to be sent to stores and so on. At times AI has incorrectly predicted how many items of stock they should send our store, and this has caused us to be low on stock.

RETAIL



They were training an AI program to detect and assess skin cancer, and upon analysing thousands of pictures it decided there was a correlation between the presence of a ruler and cancer. Because in most cases where cancer was detected the picture had a ruler in it.

STAKEHOLDER - NURSING



We were using facial recognition in NICU to confirm babies' identities before administering medication and the system kept giving false alerts 'face doesn't match'. So you constantly have to override and say 'yes, this is the right baby'. Causes extra work and also defeats the purpose if you just going to ignore all alerts.

NURSING



A lot of retail chains nowadays allocate shifts via app, which per se is not a bad idea. But at the moment, it's the fastest finger gets the shift because the cheapest way to design the app. That's a really bad thing for workers because it means you're left hanging on the phone the whole time, a bit like the old hungry mile in the depression days.

STAKEHOLDER - RETAIL



Our store, we have digital tickets, so if AI doesn't work in our store we have problems because it's not always reliable. I think that's probably my biggest concern with AI. We've had many times where our price tickets haven't updated overnight when our specials end, so customers are getting the wrong information, and there's no manual way to do it.

RETAIL

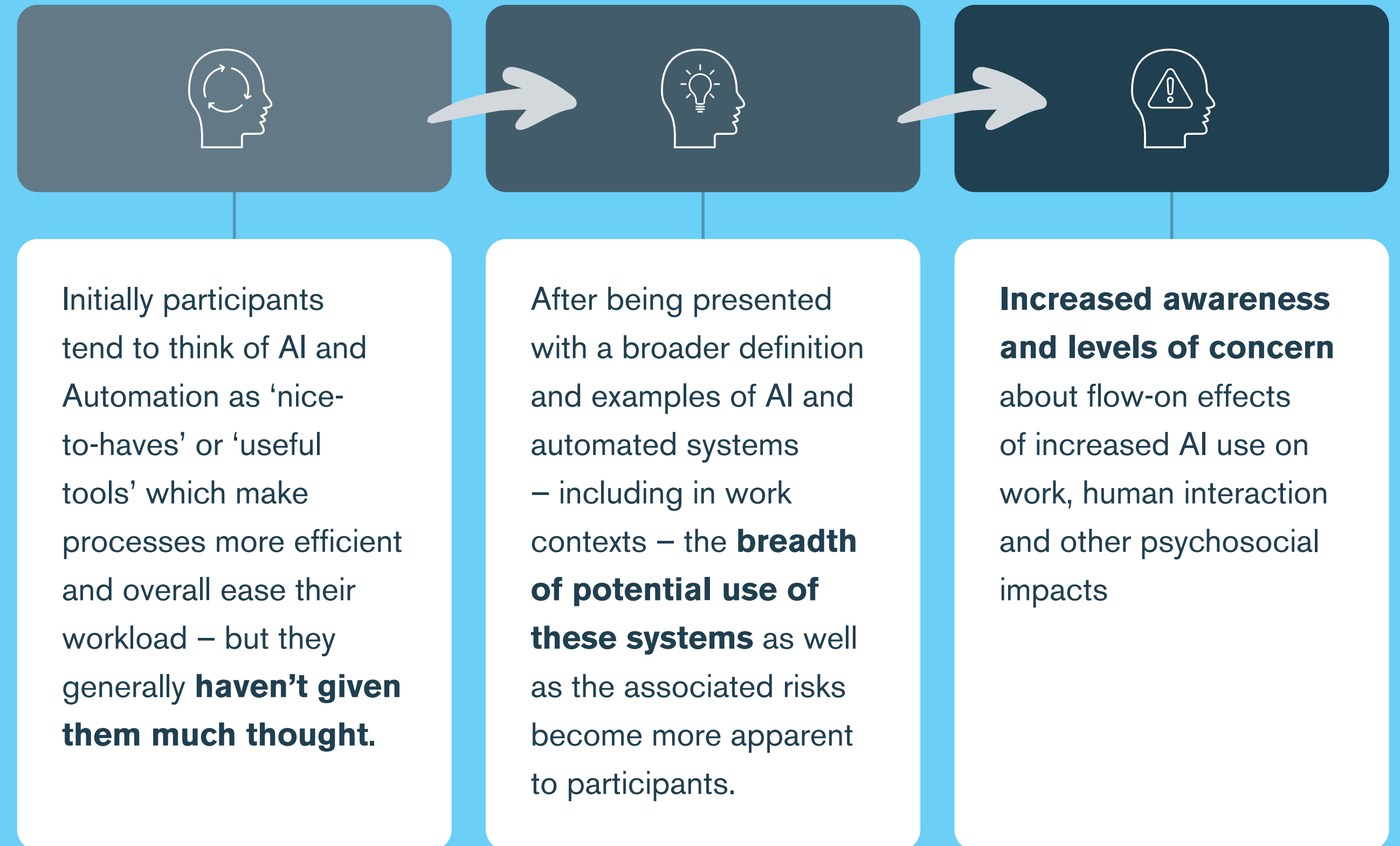
Participants' perceptions of AI and Automation shift over the course of the research



PUBLIC SECTOR

Please note: Public sector workers are more acutely aware of the risks associated with AI and Automation from the start of the research, due to concerns about Robodebt.

Exposure to examples and scenarios



Workers say that whilst the increasing integration of AI and Automation is inevitable, the focus needs to be on limiting harm and leveraging the benefits



We're not going to try to hold back the tide. There's no point, this is happening, we're more focused on, how do we harness the good aspects of this and regulate those aspects that aren't positive for workers?

STAKEHOLDER - RETAIL



I think it's a little bit inevitable. I mean on the side, I lecture at university and I'm lecturing a generation where AI is already part of their lives. This is how they live. We either have to embrace it or it's going to just come onto us anyway because that's just the generational expectation.

PUBLIC SECTOR



If everybody, all the retailers and supermarkets across the board are doing it, we're all going to whinge about it, but we're just going to have to adapt and move on because if it's inevitable, then it's inevitable.

RETAIL



People that have been within the company for 20-odd years weren't all receptive to change and they all whinge and had to just adapt. And I think it could end up being the same with everything. We can all whinge about it, but if it ends up happening and we all just integrate it into our lives and be done with it.

RETAIL



I think we are kind of beyond the point where we can decide whether or not to adopt AI and automation into our lives and work. It's definitely going to happen – whether we like it or not. But it is upon us to make sure that the good aspects are taken advantage of and the bad things are strictly regulated.

STAKEHOLDER - NURSING

The Public Sector is perceived to be a lot slower in its roll-out of AI and automated systems compared to the private sector



PUBLIC SECTOR

Public servants say that the Robodebt scandal means that government is a lot more risk averse and cautious when it comes to AI and Automation.

There appears to be general agreement that it is good to take a cautious approach and wait until the AI based and automated systems have undergone thorough checks and testing prior to introducing them to the public service.

Some believe that the government shouldn't utilise AI based or automated systems without consulting the public first.



We might have some algorithms like data matching and stuff built into our systems, but there isn't AI as such. And if we wanted to use AI, I don't know how many hoops we'd have to jump through. Following the whole Robodebt debacle, I think government is reluctant, or very determined to ensure that they don't fall into another similar situation if they can avoid it.

PUBLIC SECTOR



At the end of the day we work for the people. They pay our salaries and they should have a say in this.

PUBLIC SECTOR



I think government is probably going to be a lot slower than the commercial sector to roll those out just because of that whole risk. I mean, political risk as well as at the end of the day, our political masters don't want another Robodebt.

PUBLIC SECTOR



I think everyone should be cautious in how they treat public data or data that they have. And I don't think government being slow in this aspect is wrong. I actually think it might be beneficial. Government being slow in general is wrong and annoying, but yeah, in this case I think it is a good thing.

PUBLIC SECTOR



We need to consider the privacy and the vulnerability of our customers, be very cautious, take it slow and ensure all the T's are crossed and the I's are dotted before we put our public at risk of breaches and potential misuse.

PUBLIC SECTOR

4

Introduction of AI and Automation into workplaces



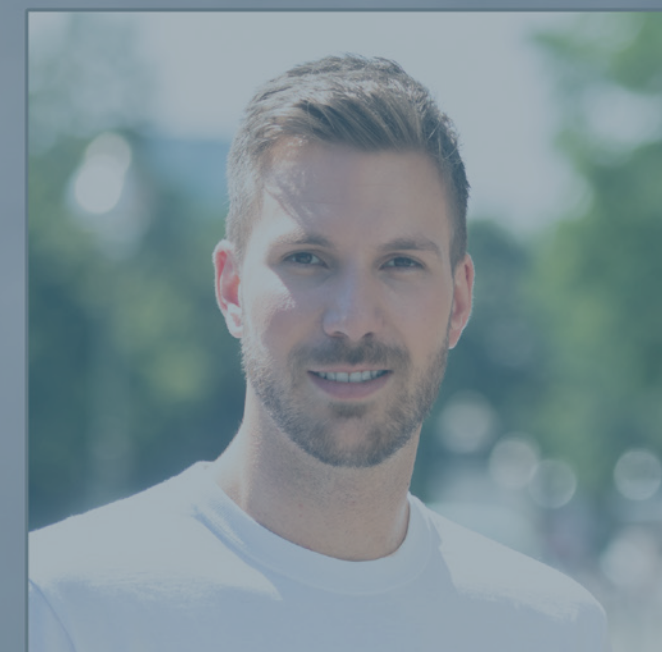
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Workers generally feel that they have little to no say or influence on what's happening with AI and Automation in their industry

There is strong agreement that the uptake of AI and Automation is happening 'to' workers rather than with the involvement and input of workers.

Where feedback processes exist, workers tend to feel like it is more about 'lip-service' or a 'box-ticking exercise' rather than genuine consultation.



Whether it be EMR (electronic medical record) or other things, they don't consult with the people that use the technology. They make the decisions for us. And then eventually we're expected to just adapt and take on the new technology. Based on previous experience, I'd have to say no, that they're not going to consult. Even though, yes, that would be the right thing to do, is to consult with those using the technology every step of the way. It doesn't actually happen in practice.

NURSING



In my experience, it's already been implemented, when you're being consulted, they've already made the decision. It's like a token. Oh, this is what we are thinking of doing. The work's already being done in the background, mate, it's coming in whether you like it or not.

PUBLIC SECTOR



Maybe I'm cynical, I've been in the government a long time, but I think they're just ticking boxes when it comes to consultation. They're not really that interested in what the frontline staff have got to say.

PUBLIC SECTOR



For big businesses like big chains of supermarkets, I think so the decisions get made at a very high level. We don't get asked of what would be done. We get told from Monday we are going to use this thing, so get on with it. I think so in terms of AI, because if the customers are going to ask us questions, we better at least know.

RETAIL

The quality of training that is provided on new AI tools and automated systems varies between workplaces

Many report that training in their workplace is provided in the form of online, video modules which workers are asked to complete in their own time. They note that these training modules generally involve little to no checks that the content is absorbed and well understood by the trainees.

Several say they aren't given enough time to practice to really feel confident in their use of the new system.

Only a few participants (mainly nurses) say their workplace provides thorough in-person training on new systems and sometimes this involved a dedicated person in the workplace that trainees can approach if they have questions.

Workers in all three target industries say the training predominantly focusses on using the system – but doesn't provide information about how the system operates. This means workers often don't have clarity around how the system arrives at a certain conclusion and/ or it's limitations.

“ Training in the public service sucks. 10 years ago or 20 years ago, you had facilitated training, and you took time out of your schedule and now it's just a web based and I don't know about anyone else on that call, but if I've got a thousand things to do, I'm just going "click, click, click, click, click, click" till it's done. And unless I'm actually working doing that particular thing, I'm not going to learn on a web base. **”**

“ I think thorough training for staff is very important, in my current workplace if staff don't understand something it never seems to be implemented or used properly. **”**

PUBLIC SECTOR

RETAIL

For cohorts who aren't particularly tech-savvy, the available training is often perceived as insufficient and can feel overwhelming

Participants note that workers come from very different starting points when it comes to their proficiency and understanding of technology.

They also point out that it is significantly harder for older staff members to learn and adapt to new systems and tools. In addition to that, learning to work with a new AI based or automated system can pose a significant challenge for workers with a disability or language barriers.

Nurses are more likely to say that their work environment is constantly changing and that the requirement to continuously learn and integrate new tools and systems can be quite demanding and stressful.



I see the availability of training and skill advancement to use new tools as a challenge, and that's probably particularly applicable to older workers who already subject to workplaces that are changing quite rapidly. There's a whole new set of skills that are being expected of older nurses and that is not necessarily accompanied by ongoing training.

STAKEHOLDER - NURSING



There's always something new happening, even just with the computer system or how we do things, there's a huge amount of change fatigue, because it's all just extra on top of trying to do your normal job.

STAKEHOLDER - NURSING



There's such a varied variety of people and previous experience with technology anyway that it's I think quite difficult to find a nice balance between giving too much training and not enough.

PUBLIC SECTOR

Developments and innovations in the realm of AI and Automation tend to ‘spill over’ or be adopted from fields with more resources

Workers observe that new AI powered and automated systems tend to be developed in specific ‘niches’ of their industry.

Generally, this relates to sectors or departments which attract a lot of funding (e.g. biotech and pharmaceuticals in healthcare) or parts of the industry where corporate leaders have identified the potential to maximise profits with use of new systems.

They say this can result in systems and tools being rolled-out in their field of work, which aren’t specifically designed and therefore sometimes not suitable for use in a different area and therefore don’t necessarily add value.

“
You probably see more AI use in cancer, in transplant surgery. I don’t think so much in maternity services. There are also high profile areas where there’s a lot of research money as well so there’s probably a little bit more advancement.”

STAKEHOLDER - NURSING

“
We obviously get less funding than departments, but I assume if anything was going to happen, it would happen in the Department of Health first, and then we would get their hand-me-downs or whatever they thought was successful a couple of years later.”

PUBLIC SECTOR

“
It’d be nice to have a whole hospital collaboration. Okay, we’ve done every ward, every department, seeing how it’s going to look across the whole entire system. And then work out ways to implement it that way ahead of time instead of just going, “Well, it worked really well for this department, we’re going to implement it across the whole hospital.”

NURSING

Workers note that there is often very limited adaptability or flexibility of the systems to make them suitable for different contexts

They say that once an AI powered or automated system is introduced it is generally not easy to implement changes or fix issues that lead to problems or extra work.

And on top of that, it is often hard to explain to patients or customers what went wrong, because the underlying processes are complex or opaque.

Some workers describe how they learn to 'work around the system' rather than benefitting from the use of an AI powered or automated system.

“

The increasing roll-out of automated systems and alerts causes severe alarm fatigue among nurses. When an alarm goes off, we tend to ignore or not take it seriously. Or immediately override to stop the alarm.

”

NURSING

“

Unfortunately, sometimes it's hard to explain to the customers that an AI system actually made something wrong, and because of that you haven't got actually your product on the shelf to buy. And that there's nothing that we as staff can do about that. That it will just keep happening.

”

RETAIL

“

I reckon all public service have the gift of the workaround. Doesn't matter what system we are given after using it for a while, it's never going to work out it's meant to. But you're a legend because you find a way to do your job despite of the systems they give us. That should be on a skill in your job application.

”

PUBLIC SECTOR

5

Current use of AI and Automation in target industries



NURSING

Area of use?	What system?	How is it being used?	Nurses' comments
Administration	AI-based Electronic Health Record (EHR) management systems	To aid with anamnesis and looking up past admissions, medications and other relevant health information. Can include 'staff safety alerts' for patients with a history of aggression against staff.	<ul style="list-style-type: none"> • Most find this very useful, reduces workload and has the potential to free up nurses' time to be re-directed toward one-on-one patient care
Administration	Natural Language Processing (NLP)	Conversion of audio recordings to written text to help with patient records and note taking	
Administration	AI powered rostering system	Creation of shift plans taking into account employee availability, qualifications and contractual details	
Administration/inventory	Object recognition system	Registering objects when they are taken out or returned to the equipment and help reduce loss or theft	<ul style="list-style-type: none"> • Perceived as useful and improving stock keeping compared to paper-based systems which are still being used in many hospitals
Administration/inventory	Facial recognition to confirm staff identity	Verifying staff identify when accessing equipment/medication	<ul style="list-style-type: none"> • Some have questions around where and how safely biometric data is stored
Administration/patient care	Electronic checklists	Tasks that are relevant to each patient are provided to nurses in form of a checklist (e.g., prior to undergoing surgery)	<ul style="list-style-type: none"> • Perceived as useful to systematise routines and increase patient safety • Some nurses caveat that staff should add a 'human touch' to the interaction and pay attention to subtle nuances in patient behaviour that aren't captured by the checklist

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NURSING

Area of use?	What system?	How is it being used?	Nurses' comments
Patient care	Risk assessment surveys	Questionnaires to screen patients' health status, determine risks factors, alert to allergies, potential for complications and adverse health outcomes	<ul style="list-style-type: none"> Perceived as useful to systematise routines and increase patient safety Some nurses caveat that staff should add a 'human touch' to the interaction and pay attention to subtle nuances in patient behaviour which aren't captured by the checklist
Patient care	Facial recognition to confirm patient identity	Identifying patients, who cannot answer questions – e.g. prior to administering medication (babies, patients suffering from dementia, unconscious patients)	<ul style="list-style-type: none"> It's perceived as useful if it is working seamlessly, but some nurses report having had issues with this use case because of inaccuracies of the facial recognition software – e.g. when used on babies Some have questions around where and how safely biometric data is stored
Patient care	Smart Monitoring Systems to monitor vital signs	Sensors or wearable devices monitor vital signs such as heart rate, blood pressure, respiratory rate, and oxygen saturation levels and alert medical staff to anomalies and potential emergencies.	<ul style="list-style-type: none"> Nurses say this is useful because vitals have to be checked constantly, however, several say it frequently leads to false alarms and alarm fatigue of medical staff Having to manually override the system can create extra work and frustration

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NURSING

Area of use?	What system?	How is it being used?	Nurses' comments
Patient care	Decision Support systems	AI powered system can alert to potentially harmful drug interactions, suggest appropriate interventions, and assist healthcare providers in making timely and informed decisions about patient care	<ul style="list-style-type: none"> • This is perceived as useful, but nurses caveat that critical thinking needs to be applied continuously • There is some concern that this could contribute to a loss of clinical knowledge and de-skilling the workforce.
Diagnostic	Sepsis screening system	Identifying risk factors of sepsis and infection through use of AI	<ul style="list-style-type: none"> • Seen as very helpful and increasing patient safety as well as providing reassurance to nurses that those cases aren't missed
Diagnostic	Sound analysis	AI algorithm can analyse voice recording e.g., of a cough and indicate whether it is likely an asthmatic cough or a lung cancer cough or a bronchitis cough.	<ul style="list-style-type: none"> • Seen as a useful diagnostic tool as long as it is not used as a substitute for professional medical advice or diagnosis
Diagnostic	Image analysis	AI algorithms can analyse medical images stored within EHR systems, such as X-rays, MRIs, and CT scans	<ul style="list-style-type: none"> • Could increase reliability & patient safety by removing human biases • Some see risks with relying on an algorithm because users can't know with certainty whether the system recognises and analyses pathologically relevant or irrelevant factors

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PUBLIC SECTOR

Area of use?	What system?	How is it being used?	Nurses' comments
Administration	DocuSign/Electronic signatures with workflow automation	Used for document preparation, distribution, and signing, eliminating the need for manual printing, scanning, and mailing of physical documents.	<ul style="list-style-type: none"> Perceived as very useful and time-saving with environmental benefits
Administration	Natural Language Processing	Conversion of voice to text	<ul style="list-style-type: none"> Useful and time saving – but requires thorough checks.
Staff management	Rostering software (e.g., Kronos, RosterElf)	Workforce management and planning - including scheduling, time tracking, etc.	<ul style="list-style-type: none"> Seen as a useful tool to improve operational effectiveness and resourcing.
Staff management	Staff tracking AI	Alerts staff when to take screen breaks – the software is tracking keyboard and mouse activity, screen brightness changes, etc. to detect screen usage	<ul style="list-style-type: none"> Many participants feel uncomfortable with the thought of their activities at work being constantly monitored. There is concern that the AI capability would be used for performance management rather than in the best interest of staff.
Project work	PowerBI	Data visualisation tool for enhanced data analysis, visualisation, and insights generation	<ul style="list-style-type: none"> Perceived as a useful tool that can enhance decision making and operational effectiveness.
Customer liaison	ChatGPT	Respond to customer enquiries	<ul style="list-style-type: none"> Seen as useful to generate ideas for email responses.

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PUBLIC SECTOR

Area of use?	What system?	How is it being used?	Nurses' comments
Customer liaison	Automated letter generation	Automated sending of letter notifying to contact ATO	<ul style="list-style-type: none"> Convenient and time saving – participants say it is important that letters are clearly marked as automated communication.
Customer liaison	Chatbots/Virtual assistants	Automated systems to answer FAQs, provide general information and assist with online services	<ul style="list-style-type: none"> Good if it reduces workload and need for human intervention in routine tasks, however, many participants say customers are misdirected or held up and this leads to unpleasant interactions sometimes abusive behaviour towards staff
Customer service	Automated payments	Automated refunds for overpayments (e.g. in Services Australia)	<ul style="list-style-type: none"> Perceived as useful and improving customer service. Participants emphasise that this is an appropriate use because it doesn't have a potential negative impact on customers.
Security/Access	Facial recognition	Identifying staff when entering building or restricted areas	<ul style="list-style-type: none"> Most accept the use of facial and voice recognition however believe there should be clear guidelines around where and how long biometric data can be stored and how it can be used.
Security/Access	Voice recognition	Verifying staff identity – e.g. for 2-Factor-Authentication	
Fraud detection	AI algorithms that analyse taxpayer data	Detection of patterns, trends, and anomalies to help identify tax evasion, fraud, and compliance risks.	<ul style="list-style-type: none"> Perceived as useful – however, only if complemented by thorough checks performed by a human.

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RETAIL

Area of use?	What system?	How is it being used?	Nurses' comments
Inventory	Automated decision-making systems (e.g. Vend)	Tracking and managing stock and inventory	<ul style="list-style-type: none"> Useful, however, many workers have heard of instances where the system got it wrong
Inventory/Sales	Smart gates / RFID Gates	Electronic security gates to prevent theft and manage inventory but detecting RFID (Radio-Frequency-Identification) tags or labels attached to products.	<ul style="list-style-type: none"> Perceived as useful, but when faulty smart gates can become a trigger for customer frustration and abuse. Some retail workers note that these systems can cause embarrassment for customers.
Sales	Self-checkout systems	Enabling customers to scan and pay for their purchases without the assistance of a cashier.	<ul style="list-style-type: none"> Retail workers report a lot of problems with self-checkouts, because frequent error messages lead customers to become frustrated and aggressive towards retail staff. They note that the introduction of these systems has transformed their role from customer service to that of a 'security guard' supervising the registers.
Sales	Digital tickets and dynamic pricing	Use of digital tickets to display promotional offers, discounts, prices – sometimes in combination with dynamic pricing that can be updated in real time based on demand, inventory etc.	<ul style="list-style-type: none"> Workers mention problems that arise when the system is down, because they can't manually adjust prices
Customer service	Automated recommender system (e.g. included in Shopify)	Develops product recommendations based on customer profile, purchase history etc.	<ul style="list-style-type: none"> Perceived as useful, but raises some questions around data protection and privacy

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RETAIL

Area of use?	What system?	How is it being used?	Nurses' comments
Customer service	Chatbots	Answer customer enquiries and direct them towards existing resources/information	<ul style="list-style-type: none"> Workers report frequent problems with these systems and say that this leads to customer frustration
Customer service	Natural Language Processing	Record and process audio calls and ability to direct enquiries to the correct point of contact	<ul style="list-style-type: none"> Seen as useful, but workers note that customers get frustrated when the system doesn't work
Staff management	Automated decision-making systems (e.g. Vend)	Weekly performance reports which merge client information and purchases from different systems in a weekly summary report and set daily sales goals for employees	<ul style="list-style-type: none"> Perceived as a useful tool, however, workers mention instances where the system set unrealistic or implausible sales targets due to faults in the algorithm
Staff management	Rostering software & allocation of shift via apps	Creating and managing staff schedules, tracking attendance, and allocating resources.	<ul style="list-style-type: none"> Generally seen as very useful, however, some stakeholders mention concerns about 'gig-economy'-style shift allocation ("fastest finger gets the shift")
Staff safety	Facial recognition/Number plate recognition	Identification of thieves and customers with a history of aggressive/abusive behaviour towards staff	<ul style="list-style-type: none"> Generally seen as useful and most retail workers are willing to accept their data being collected and processed as a trade-off for increased safety and reduced theft
Staff safety	Eye tracking system	Installed in truck cabins to detect and alert when truck drivers show signs of fatigue and need a break	<ul style="list-style-type: none"> Perceived as a good safety fea

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6

Benefits and future potential of AI and Automation

Workers say that the use of AI and Automation provides significant benefits where it is used to enhance and inform human decision-making or performance overall

They tend to emphasise that these systems should be used to complement and improve human labour – not replace workers or de-humanise processes.



It comes back to can you harness the power for good, and to try and help us be better at our job, and to be informed by the program saying, “Oh, there’s a trend going on here, this person’s getting sicker,” and it still comes down to the human to interpret and manage.

STAKEHOLDER - NURSING



Could be real advantages in terms of quality and safety and decision-making support. So nursing and midwifery is both a science and an art, if you like, and AI has real potential to support that science, quantitative type, empirical type aspect of that role.

NURSING



Its major aim should be, major motivation should be about preventing error prevention. And making it easier for health professionals, nurses, doctors, et cetera to come to work every day and perform their tasks and reduce errors, improving patient care.

NURSING



If in the future we are able to have a lot higher accuracy in forward planning, resource allocation, public service delivery and policy development that would be amazing. I absolutely believe that there is that potential - but we aren’t quite there yet that we can safely rely on the systems. and assume they are correct.

PUBLIC SECTOR

Participants understand that streamlining processes through the inclusion of AI and Automation can mean cost savings and increased profitability and efficiency of businesses and organisations

They say this is a positive as long as cost savings aren't prioritised over the well-being of human stakeholders (workers, customers, patients).



I think it won't be far off that it gets rolled out at a massive scale in the public sector as well. I mean, end of the day, it's about cost saving as well for the government, and making use of the resources that we have.

PUBLIC SECTOR



I think the biggest incentive will be that saving due to operational efficiency. A lot of paperwork will be reduced, a lot of hours will be reduced. And because of this, definitely government will save a lot of dollars in that work.

PUBLIC SECTOR



We are going to increase capacity and the ability also to process more orders per day. So, the efficiency also of the entire system and the process would actually improve. The manpower required, so a drop in cost, and reduction of risk of incidents.

RETAIL



Obviously, automation is going to increase efficiencies and bring down actual cost. It's going to reduce the risk of manually handling and stacking heavy goods and reduce the risk of accidents. The streamlining of purchases will increase the capacity to process inbound and outbound good.

RETAIL



The problem with savings and increased efficiency is that they tend to get harvested. So if you're creating automation and it's creating a saving in a certain area, you tend to lose those staff in that certain area even though they could be moved to other, more meaningful work.

PUBLIC SECTOR

Many believe that if AI and Automation are utilised in the right way it has the potential to enhance the experience of patients and customers overall

Participants note that the streamlining of processes will result in reduced wait times for patients or customers.

- In a healthcare setting this could improve safety by allowing staff to attend to each patient faster.
- Public sector workers say that being able to process more cases or enquiries faster means customers receive payments in timely manner or have issues resolved without lengthy delays.
- In retail, reduced wait times to complete purchases and have questions answered are generally seen as a positive that will result in more satisfied customers.

Many also note that fast-tracking and outsourcing certain tasks and processes can free up time that can be spent more meaningfully on things that benefit from human input.



It definitely saves us time as healthcare workers, which means we are able to treat our patients quicker (in emergency anyway), and more of them → thus improving patient safety. It would reduce natural human error (as long as AI as accurate).

NURSING



I think it will augment interaction rather than reduce or increase it. Interactions will be more meaningful as repetitive, simple information can be gathered from the patient with AI.

PUBLIC SECTOR



Look at Services Australia, if you brought in some kind of AI that would process job seeker payments that weren't complex, then people wouldn't be waiting for six months. So, then you wouldn't need to fund all that overtime that the local offices are doing, and people would get their money on time. So that would be a win-win.

PUBLIC SECTOR

Participants see huge benefits if AI and Automation are being used to better manage and reduce workloads overall

They say that there are many time-intensive tasks which don't necessarily require a human input. Being able to outsource these processes could help reduce stress and staff burnout.

Participants point out that, especially in physically or emotionally demanding jobs, the increased use of AI and Automation could contribute to making the workforce overall more sustainable by reducing workloads and the risk of burnout.



I hope that AI will improve efficiency within the healthcare system, allow for timely care, thereby improving patient outcomes. AI also has the potential to make positive change for staff well-being and avoid fatigue and burnout.

NURSING



Most people in the APS actually feel that they're overworked and don't have enough resources. If these tools would mean that less people would get burnt out or work ten hours overtime every week, then yeah, I think it is definitely a good thing.

PUBLIC SECTOR



At the moment, there's a labor shortage in Australia. If you want to maintain your workforces, how do you make it sustainable work? And I think there's ways that you can use technology to actually make it sustainable rather than just make it short term profit maximizing.

STAKEHOLDER - RETAIL



I'm really interested in the potential for AI to hopefully revolutionise staffing and rostering. It is a huge corrosive issue. The lack of control, particularly for a feminised profession who have a lot of caring responsibilities outside of their work. Rostering is a huge issue. A lifetime of shift work takes up to 10 years off your life in terms of what it does to your health. We've got really just a really restrictive old-fashioned approach to rostering.

STAKEHOLDER - NURSING

Many participants say that the ability to reduce or outsource mundane, repetitive tasks will improve their job satisfaction



AI and automation enhanced operations, streamlining tasks and improving customer experiences, revolutionising retail workflow. AI integration heightened job satisfaction, enabling focus on meaningful interactions and problem-solving rather than repetitive tasks.

RETAIL



I run a call center, and we spend probably 90% of our time on that call center dealing with password resets. So, that's something that I think we could easily solve with machine learning. And it takes my skilled staff who are really content experts away from that support role that they've had to take on as part of mergers and acquisitions of agencies and departments.

PUBLIC SECTOR



The biggest area by far where AI has been implemented in the medical field and in nursing so far is in record keeping and data management, which sounds boring, but for nurses, it's such an enormous part of what they do and often one of the more frustrating parts of their role.

STAKEHOLDER - NURSING

Some retail workers believe that the increased use of computer vision systems in stores can improve staff and customer safety

They note that there is CCTV in most stores already and with customer abuse on the rise some see facial recognition or number plate recognition systems as increasingly important safety features.

A few also mention the use of body cams in some stores, to enable workers to record and report abusive, aggressive or criminal behaviour.

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The level of customer abuse is off the charts, some workers are pleased to have the footage available to address that issue.

STAKEHOLDER - RETAIL

“

Look, if the facial recognition helps catching notorious criminals and thieves then I am all for it. If you're not doing anything wrong, you don't have to have a problem with being recorded.

RETAIL

“

More and more staff rely on bodycams. It's a camera and there's a capacity there to turn it on if someone becomes abusive or as we say, they cease being a customer and commence being a perpetrator. The feedback from our members and some of these people were delegates trying those was overwhelmingly positive because it made them feel safer.

STAKEHOLDER - RETAIL

There is excitement for the future capabilities and potential of AI and Automation

Workers in all three target industries believe that the use of AI and Automation can bring huge benefits in the future.

Many think, however, that the systems aren't sufficiently developed yet to be used reliably, safely and to their full potential. Several also note that we are currently lacking regulatory preparedness to roll these systems out at scale.



I was wondering if, because one of my babies had a general movements assessment the other day. And they've just got a physio that videos them for five minutes to see their movements. And it's quite predictive of things like cerebral palsy or any atrophies later on. And I wonder if that could be combined. And if the baby's being streamed, and it could be like, beep beep, your baby's having a seizure. Or the baby's not well contained and this is not neurodevelopmentally appropriate. Things like that could predict things in the future, and you could intervene even earlier than physios are doing it.

NURSING



I am in the process with my mum who's got Alzheimer's and trying to keep her at home, but with those reminders for her regularly of what she needs to be doing. And we are trying to set it up with the Google Home and it's just not working the way that we want it to work. I guess we haven't found the right technology to advance for us where we want it to tell her how to cook her egg and see what she's doing. And then tell her what steps to take to say, notice that the stove's still on. "Hey, Jen, your stove's still on. Make sure you turn your stove off." Those little prompts and reminders.

NURSING

CAMERA 5

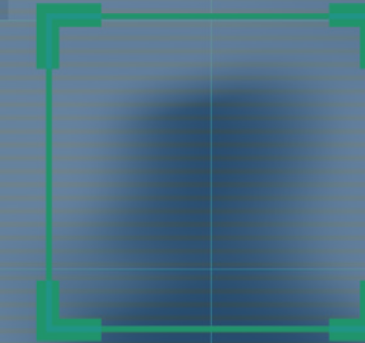
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ID:1235862
FEMALE
BLACK HAIR
RUSSIAN

ID:75232568
MALE
BLACK HAIR
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AGE:37
STRESSED

AGE:24



Weaknesses and risks of increased use of AI and Automation

ID:3811947
MALE
BROWN HAIR
RUSSIAN

AGE:19

RELAXED

ID:156341
MALE
BROWN HAIR
RUSSIAN

AGE:48

RELAXED

ID:34593845
MALE
BROWN HAIR
RUSSIAN

AGE:28

RELAXED

Participants fear that the increased use of AI and automated systems will de-humanise work patterns

Participants observe that when AI is used to analyse work processes, the aim generally is to optimise efficiency and remove unnecessary gaps in the process.

In reality, this can mean removing important breaks for workers and/or setting unrealistic benchmarks that don't account for unforeseen events or special circumstances.

Some participants also note that workers will almost always try to work within their prescribed productivity benchmarks to avoid a negative performance rating (which then reinforces the artificial work pattern, rather than reflecting the human one).



AI and automation in the workplace may offset critical insights or judgements from people. This includes accounting for special circumstances or events which an algorithm may not be able to detect.

RETAIL



The drive to apply a standard lens to every task inside a retail environment is a problem. And it's particularly difficult because unlike a production line, retail is an unpredictable environment. You have these things called customers that get in the way of a nice steady flow.

STAKEHOLDER - RETAIL



One of the problems is that the system learns from what gets put into the system and then people will have workarounds to fulfill their benchmarks so, they're actually training the system poorly.

STAKEHOLDER - RETAIL

There is broad concern that a growing reliance on AI and automated systems will lead to a de-skilling of the workforce

Participants from all three target industries believe there is a risk that workers will become overly dependent on decisions and recommendations made by AI or automated systems, meaning that they no longer apply critical thinking or knowledge that they have acquired throughout their working life.

They note that this could make specific skills and expertise redundant in the long-term.

Many also note that it requires a high level of self-confidence in your own knowledge and abilities to override or go against a decision or recommendation that has been generated by AI or automated systems. They say that there's a risk of younger, less experienced or educated staff becoming overly reliant on these decision-making systems and not applying the appropriate level of scrutiny or personal judgement. This also impacts their ability to check the outputs of the system or to create a manual workaround if the system is not available.

“ I know that when I started with Service Australia, we manually calculated. When we were doing the audits, we've manually calculated customer payments. No one knows how to manually calculate a customer payment. If you're reliant on a tool or reliant on AI going forward, then you're going to lose that knowledge on how it was done previously. PUBLIC SECTOR

“ It can put you in a very difficult position if you have to make a decision that you are very confident is the right decision versus what the AI is recommended because of complex issues that the AI might not understand. NURSING

“ I think many younger nurses have already become so reliant on things like AI and on the internet and searching up their answers that they can't critically think anymore. NURSING

Participants believe that the over-reliance on AI and Automation – and technology more generally – can pose a risk in itself

They point out that in case of a systems outage the ability to deliver services can be severely impacted in case of a system outage.

Workers express high levels of concerns about this possible future scenario and believe organisations need to have back-up plans and strategies in place to secure the delivery of essential services in these instances.

Many highlight the importance of having a workforce that has the required skills to perform tasks without the assistance of AI and Automation, if necessary.



If the computer system fails, we've got processes in place, but the hospital sort of grinds to a halt, because we have to. So there's always a concern with over reliance on some of these systems, but you'd have to have what happens in a disaster, what happens in a blackout, that sort of thing.

STAKEHOLDER - NURSING



I think it's fantastic how we use and do rely on AI in our store. But for the negative side when it doesn't work it really, really hurts. Because that usually means there's nothing we can do.

RETAIL



Everybody in my job should be able to manually do everything we need to. We just do it old school. However, in saying that, all of the new employees, whether they're permanent, part-time, full-time or casual, I feel like they're just not getting adequately trained because we're reliant on these systems.

RETAIL



I think it is a real worry if you imagine that at some point everything is automated and decisions are made by algorithms, without anyone really knowing anymore how it's done. What happens if we have a complete breakdown of the systems? People wouldn't receive their payments anymore, whole chains of critical decision-making would collapse.

PUBLIC SECTOR

They note that increased use of AI and Automation has the potential to fundamentally alter human interaction

Some point out that a similar development can already be observed with the increasing presence of smartphones, screens and other digital devices in our everyday lives.

They therefore believe that growing reliance on AI based or automated systems could lead to a loss of human communication skills and alter the social fabric of our society.

Many believe that the quality of service and/or care is going to deteriorate if the human element is taken out of the equation.



I think overall this will affect our society, how people interact, socialising is a skill and if not used can be lost. How to communicate, read body language, make eye contact etc.

RETAIL



I've heard people mention that the computers are interfering with real life interaction as you're too busy filling in all the check-lists to ACTUALLY clinically assess your patients or meet more than their basic needs.

NURSING



Older customers do enjoy a chat and getting to know the customer service person. New gen doesn't care much and wants to have less interaction. I do believe that tech is nice but we all need human connections too. For some people coming to the shops if the only human interaction they might have in a day.

RETAIL

Most participants feel deeply uncomfortable with the thought of being surveilled while at work

There are very low levels of confidence and trust that the systems would be used in the best interests of employees (e.g., to increase safety or prevent burnout).

Many participants raise concerns about the impact that constant surveillance could have on workers' mental health, social interactions in the workplace and the quality of service-delivery.

Retail workers are slightly more likely to see CCTV surveillance and use of facial recognition as a staff safety feature (e.g. to prevent or police customer abuse or theft).



Honestly, my initial reaction is one of horror! I actually see it as potentially being abused by the hospital. It would be great if it was used to identify/flag potential burnout, but I think it would be used primarily to identify ways to reduce say nurse ratios.

NURSING



This is all an information game. Everyone can be watched at all times. It is wildly intrusive and not something I would like to have in my workplace. I don't want my data or the customers' data being collected and stored by these systems.

RETAIL



I think it does create sort of a dystopia. We don't want to become like other countries where it's quite a lot more surveillance in these sort of areas in general as well. Of course people don't want to be watched. People don't want to be watched all the time I think.

RETAIL

Most participants can cite examples where the use of AI or automated systems has led to anger or dissatisfaction - which is frequently taken out on workers

Often this is the case because the system is faulty or doesn't work as intended. This issue was most prevalent for retail workers who describe how self-checkouts routinely cause issues.

They also mention that facial recognition and other surveillance systems (e.g., smart gates) can contribute to a charged atmosphere in stores and lead to customer aggression escalating more quickly.

Public servants report regularly having to deal with customers who were held up or misdirected by chatbots and automated phone systems. They note that by the time the customer has the first human contact, their level of irritation and anger is often already high.

Workers point out that this is particularly frustrating because they have no immediate way to resolve these problems, because they generally can't change or fix the AI or automated system. Workers note that this highlights the importance of having non-tech alternatives in place.



Some stores use AI to track customer behavior to protect staff from abuse and aggression. That initially sounds great, but this use of AI can actually increase tension in stores where people feel like they're constantly being surveilled.

STAKEHOLDER - RETAIL



There are a lot of customers who absolutely hate self-serve checkouts and automation as they believe that this is the cause for so many people to lose their jobs. There are also those that don't want to "serve" themselves as they believe that if that were to occur, then they should be getting a "discount" for taking on this extra "work". I then have to deal with angry customer comments and it does bring my mood down and make my day unpleasant.

RETAIL



It's frustrating because there is really nothing we can do. We can only apologise, fully knowing that it will continue to happen. If the Automated phone system doesn't work properly, it's out of our control.

PUBLIC SECTOR

Questions around accountability and liability when relying on AI and automated systems are highly concerning to workers in all target industries

Participants say that there needs to be clear guidance and regulation around what happens in instances where human staff rely on decisions made by AI and automated systems, but it turns out to be wrong.

This is particularly concerning in high-risk or high-impact situations (life-or-death-scenarios, decisions that have significant social or financial ramifications, etc.).

They also require clear instructions what steps need to be followed when recommendations made by AI or automated systems differ from conclusions or decisions that staff would have made.

Most express high levels of concern that in these scenarios, workers would not be protected from being held legally responsible.

“
What if AI says something and you are just following through and then the surgeon comes out and goes, “That shouldn’t have been done. Why did you allow this to happen?” What’s going to happen and will we get more in trouble for what AI does?
NURSING

“
If you use an AI tool to help create a care plan for a patient or to influence a diagnostic decision, ultimately the health practitioner is going to be responsible for the decisions that are made. I think that that’s going to be an area requiring lots of investigation over the next few years. Where is that nice meeting point between the professional obligation of the nurse or midwife and their use of an analytic tool?
STAKEHOLDER - NURSING

“
I’d say that we have a responsibility to show reasonable due care. If we’re doing what can reasonably be expected of us, I’m not concerned about the program making an error if I have acted appropriately in the circumstances. I do know that there would be people who would just blindly rely on AI and I would be concerned for them.
PUBLIC SECTOR

Some participants highlight the risks that arise from relying on decisions that are essentially made in a 'black box'

They mention the fact that no one, not even the designers of AI and automated systems fully understand or have complete information about how these systems operate.

These knowledge gaps mean that there are a lot of uncertainties around current accuracy, reliability, ethics, etc. This also means it is virtually impossible to foresee future outcomes and developments of autonomous machine learning.



I think the issue with AI is so often the decision-making within the AI is opaque. Not even the builders of that AI system can explain once it's trained on the data set, why it chooses X, not Y. Like why it comes up with that end output because it's not a simple algorithm, a simple formula or whatever that gets you there.

PUBLIC SECTOR



The technology is incredible. I have some reservations though – I am not convinced the people that are building it actually understand how it works. And that concerns me because humans are more likely to pick up human mistakes, whereas I'm not sure how good humans are at picking up AI mistakes, because the way of thinking is just so different.

STAKEHOLDER - NURSING



Very few people, if anyone at all really, can know exactly where all the technological change is heading, what capabilities or uses are going to be around in the near future.

STAKEHOLDER - NURSING



The way the AI works is entirely a black box. It's even more confusing for the general public to understand how that decision was made. So, I see a lot of confusion arising from there and a lot of loss of trust in how the government operates.

PUBLIC SECTOR

There is some awareness that AI and Automated systems are highly susceptible to biases

Stakeholders are often aware of this prior to participating in the research.

Most participants haven't considered this but generally understand it and recognise it as a significant risk of increased reliance on AI based or automated decision-making.



It learns by the stuff that we put into it. How do you know what we're putting into it is any good? What are we teaching it, mate? At the end of the day, humans make errors. If someone implements information or feeds information into AI that's totally rubbish... You know? Can we trust it?

PUBLIC SECTOR



Algorithms do sometimes have a tendency to adopt poor human biases because they are products of the information that they get fed.

STAKEHOLDER - NURSING



Facial recognition is notorious for not being reliable and having some pretty obvious biases that can negatively impact the identification of minority groups. That's something to think about before we publicly call someone a thief.

RETAIL



There's been a lot of examples of AI internationally where if the data set is biased, AI will magnify the bias of the data set. For example, if you're using AI to filter job applications, it's possible for AI to go, well look, 70% of people in these jobs are middle-aged white males. So that must be an inherent characteristic that makes it more suitable for the job. It'll filter out applications that are not.

PUBLIC SECTOR



If you have a system which works entirely on percentages, it's going to cater for the majority of people, but that leaves people who are already in disadvantaged positions. For example, a system where AI is recommending where the next hospital should be built. Most of the people live in cities, so it's going to recommend you build in cities. What's going to happen to people who live in rural areas when they don't have enough infrastructure.

PUBLIC SECTOR

Some workers have observed instances where the use of AI and automated systems have involved an element of ‘humiliation’

They describe examples where the process of automating or outsourcing certain tasks to AI or machines has led to workers or customers being (publicly) called out in a way that caused them severe stress and/or embarrassment.

They say that many situations require a human assessment to determine what is fair and appropriate and say that eradicating this step in the process can have potentially disastrous consequences.

For public servants the most prominent example is Robodebt, where in some instances welfare recipients experienced extreme distress due to the automated notices they received.

Retail workers mention smart gates as examples where suspected thieves are ‘exposed’ while trying to exit the store – and sometimes unfairly so.



There are certain things that an AI cannot do. It might come up with a decision that looks spot on paper, but they can't do the fairness test, can they? You can't learn the fairness test. It needs some kind of human intervention.

PUBLIC SECTOR



We are predominantly working with people who are at risk. Things like homelessness, intellectual or cognitive issues. You look at Robodebt. We raised the debt, people just got so flabbergasted they killed themselves.

PUBLIC SECTOR



There have been incidents where staff have been publicly reprimanded for things. During the COVID times, there was a staff member who forgot to do her automated COVID check in. And we had security going around and checking our phones that we had checked in and this staff had completely accidentally slipped their mind didn't do it that day. And they were fired or suspended or something and it was publicly known. It was put into the public newsletter for us to all know that that happened.

NURSING

Participants worry that increased uptake of AI and Automation will alienate or exclude certain parts of the population

They say the use of these systems can pose a barrier for certain groups who may struggle with using technology, e.g. the elderly, people with a disability, people who speak a language other than English.



I think the older population is going to be very freaked out by it. I know my parents, for example, still do a paper tax return. And we have an aging population, and they are old school. They like to talk to a real person. They don't want to chat in a chat box. So yeah, I think, yeah, we're going to alienate a certain part of our population

PUBLIC SECTOR



We're getting a lot of the elderly that are responding to these scam messages because they feel like it's from the government. With AI, I'm just a little bit hesitant that these guys won't take it on and won't know how to use it either. So, we've just got to be very careful about our audience as well. Not everyone is tech-savvy.

PUBLIC SECTOR



We are dealing with a public where many have language barriers, and they may not be able to use these systems. We might have people that are not educated enough to use these systems. So, there's a lot of potential for dramas and issues for customers that can't use the system for whatever reason.

PUBLIC SECTOR



Especially for the elderly and people who don't really like or they're not really close to technology, it's even harder because they really don't understand what is behind it and they don't trust it. So, then they don't like actually even if you give them a transparent and a correct information, they not accept it.

RETAIL



I come across a lot of elderly and disabled people in my job at Kmart. And these beautiful people, sometimes you may be the only person that they see all day, and if you can just have that little five-minute conversation with them, it really makes them feel important.

RETAIL

Participants say negative experiences with AI and automated systems can lead to a loss of trust and reputational damage for the businesses or organisation deploying it

This is a particularly big concern for public servants who say that government can only operate effectively if the public has a certain level of trust in the system.



I think if the Australian government were to have a data breach and people's data were to be leaked because of the use of AI or something like that, it would just be catastrophic for people's belief in the government and people's trust in the government.

PUBLIC SECTOR



I think it'll cause loads of problems. If you put the wrong system and try and integrate that into the healthcare sector, it could be disastrous. If people don't feel safe in a healthcare setting it could have loads of very bad flow on effects.

NURSING



I'm not sure if you can use the Woolworths chatbot to see if the particular product is halal or not. But this customer said she did get the wrong information. Our relationship with that customer has been sort of frayed.

RETAIL



We have a lot of data, a lot of data from what's in people's bank accounts, how much dividends they get, how much interest they get. And yeah, privacy is a huge deal in the tax office. And rightly so, if we were hacked and our data was infiltrated, there would just be a huge loss of confidence in the tax office, in the government.

PUBLIC SECTOR



A couple of times that forecast was completely out of whack and we didn't correctly plan production. That meant that our retailers didn't receive the stock they needed. It actually impacted our KPI in terms of delivering on time and affected the relationship to customers. We are receiving quite a few complaints through our website and portals.

RETAIL

The risk of data breaches is a top-of mind concern for many participants

Workers see huge risks associated with collecting and storing large amounts of personal data. Several note that many AI and automated systems are developed and owned by private corporations, often located overseas.

They have concerns around what this means for the standard of data protection and privacy.

Participants say this is particularly worrying when AI capabilities and automated systems are utilised in the provision of essential services. They point out that patients or customers essentially don't have a choice but to access these services and that they are therefore denied the opportunity to refuse consent.



Security and invasion of privacy are big concerns. From a business perspective I can definitely see the benefits of using these new tools, however, from an employee / individual perspective I have concerns.

RETAIL



I'd be concerned with privacy. Already, there's a perception out there that systems can be hacked or accessed. We only have to look at Optus and Medibank and all that sort of organisations. There is a perception in the public that information is already accessible. So rightly or wrongly, perception will be that my information can go to the wrong hands.

PUBLIC SECTOR



If you have an accident and someone calls the ambulance, you're gonna be brought to a hospital – whether you like it or not. If we are widely using these systems in public healthcare people really don't have a choice, so therefore the highest standards of data protection needs to apply, always.

NURSING

Public servants note that government generally doesn't have the resources required to pay best-in-field experts in AI



PUBLIC SECTOR

They say that people with expertise in AI and Automation are highly sought after and will find better paying jobs in the private sector.

This means that government either must buy in AI based and automated systems that were designed and developed for corporate use, or operate with systems that don't live up to best-in-class standards.



It would be beneficial, there are a lot of people in the agency who would like to use it, but there's only 200 of us, and we don't have the funds to get people to set that up for us externally, and we probably don't have the skills internally because anyone in IT would be making significantly more money elsewhere.

PUBLIC SECTOR



The government is not an innovator. The government's role shouldn't be to drive innovation. It should be to facilitate innovation. Like I said, the government doesn't have the subject matter experts to actually do this work.

PUBLIC SECTOR



I know that there is no one in the government who is an AI subject matter expert. All the people who have that skillset don't work in the government because you earn a lot more money working in the private sector, so they're never going to work for the government. So essentially, if you want to train an AI for the government, you're going to have to trust some private entity with large amounts of people's data. And the risk is if that data is breached, you're going to have a large loss of trust in the government. And it might get to the stage where people just don't ever want AI to be involved in government decision-making at all.

PUBLIC SECTOR



The talent is going to get a lot more money out there in the private sector for building the same tools as they're ever going to get from us if we hire them or attempt to hire them.

PUBLIC SECTOR

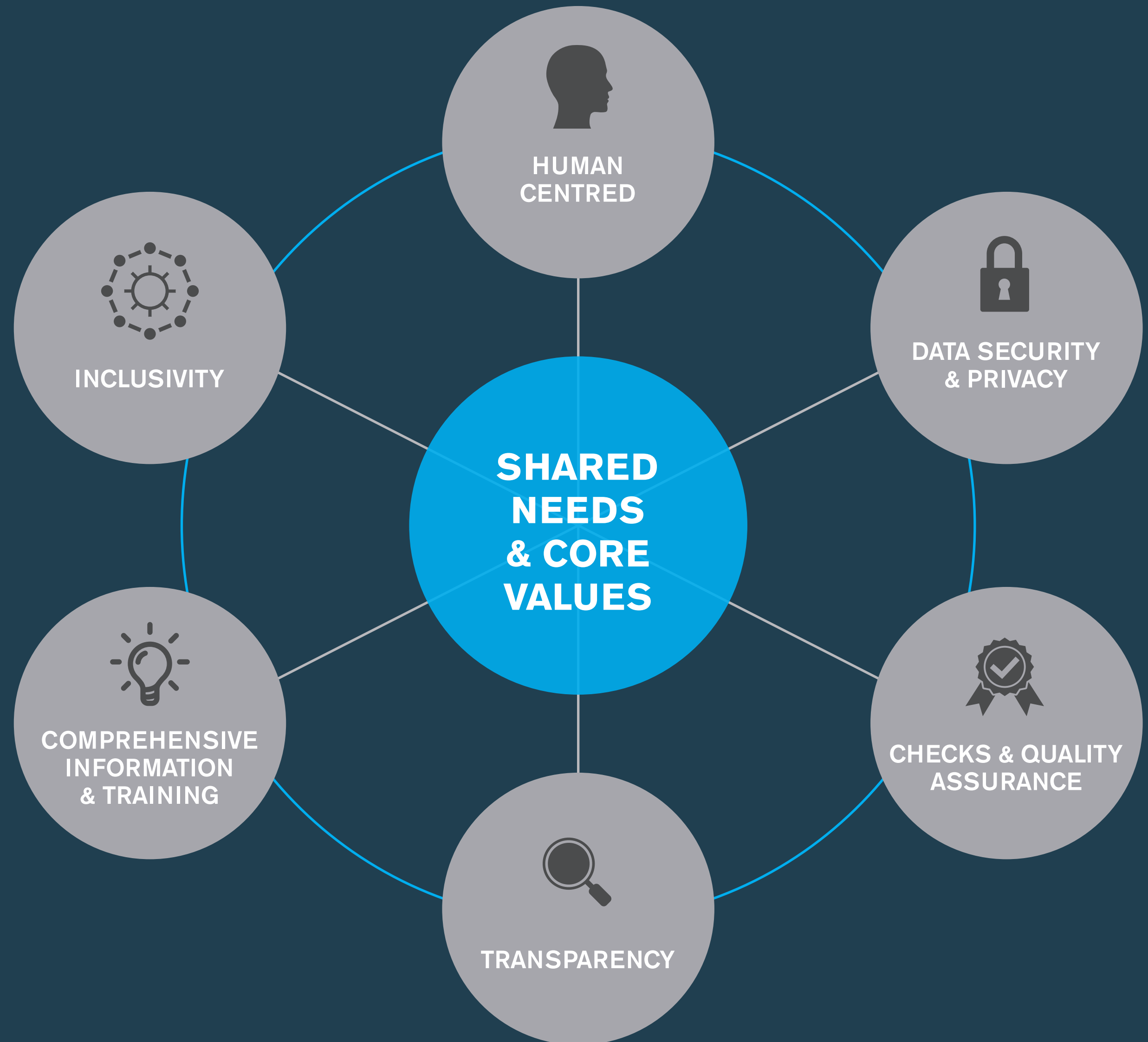


Shared needs and values around the implementation of AI and Automation

The research identifies six core values and needs

Please note that there are overlaps and close interconnections between the core values and needs.

SHARED NEEDS AND VALUES AROUND THE IMPLEMENTATION OF AI AND AUTOMATION





Ethical development of AI and Automation to protect human rights

- Establishing AI and Automation safeguards to ensure that they operate according to our norms, cultural and ethical expectations and don't infringe on human rights and align with existing laws.

Use of AI and Automation to assist, enhance or compliment human intelligence and labour – not replace it

- Integrating human oversight in all critical decision making and not using AI and Automation beyond its known capabilities.



Privacy protection is meant to be a facilitator of freedom of association, not a blocker to freedom of association. And in that context I think that worker surveillance is an important thing to think about for freedom of association. I think there are some risks in that space if employers can see who meets with union reps in the workplace.

RETAIL



Whether it's an augmentation of a human's role and so that keeps people coming back because they like that human interaction or whether it's a complete replacement. I think that's where we're at a crossroads at.

STAKEHOLDER - RETAIL

Safeguarding human rights and preventing large-scale disruption of labour market and job losses



Humanising work patterns

- Ensuring that automated workflow and processes are reflecting and accommodating human behaviours and needs (e.g. allowing time for breaks, social interactions, etc.).
- Building a level of flexibility into benchmarks and performance measures to accommodate for different situations.

Sharing benefits back to workers

- Rather than simply ‘harvesting’ benefits like extra profit, time and staff savings – employers should try to look for ways to ‘reinvest’ those wins back into the system to ensure workers share in the benefits (e.g., higher salary, better services).



Things keep changing and we have to keep adjusting to that but how do we keep humanising that and making sure that the people who are engaged still on the process get a fair share for the productivity increases at that are seen and that the work is human-centric, not technology-centric?

RETAIL



It’s really in the hands of our employer, is the money saved through efficiencies from automation and stuff, and the resources, staffing resources, is that reinvested in government services? Or is it just pocketed at the end of the day?

PUBLIC SECTOR

Prioritising the longevity of workers/ the workforce over maximising profits and efficiency at all cost.



Ensuring that AI and automated systems are widely accessible

- Giving specific consideration to groups within the population who may struggle to engage with or use these AI or Automation based tools and incorporating these needs into the design.

Offering alternatives to AI and Automation

- Providing other ways to access services and information to ensure that everyone has access to essential services



In some cases, it's really a generational divide whether or not people feel comfortable to use a service that is AI or automation based. Take self-service checkouts – under 30s might prefer it that way but we still need manned registers for the elderly.

RETAIL



We don't only need to think about the majority of people. We are supposed to serve all citizens and that can be a challenge but that's the role of government.

PUBLIC SECTOR



It could be disastrous if large parts of the public didn't trust or feel comfortable accessing healthcare.

NURSING

Catering for needs of marginalised or vulnerable groups within the population.



COMPREHENSIVE
INFORMATION
& TRAINING

Ensuring AI and automation capabilities are understandable and interpretable to humans.

Workers say they require in-depth training and information

- This should not only include information about how the tools should be used, but also the basic principles on which it operates to ensure staff can apply the necessary scrutiny to system outputs.
- This should include processes where staff can raise concerns with individual outputs or general outcomes. Also more generally training on AI and concepts such as fairness, transparency, accountability.
- They say that online training modules or information pamphlets are insufficient for systems that have certain complexity or involve sensitive data or privacy concerns. Many think having a subject matter expert on site for a period of time to ask questions and provide feedback would be beneficial in these cases. Workers note that there should be a pre-defined review period - once the system has been live for an agreed to time to assess whether it is operating as intended, benefits are being gained, more training is required, etc.



I think a big thing on the whole data literacy and understanding how it all works, which should be mandatory. They're getting back what they're investing and staff are understanding what they're using things for.

PUBLIC SECTOR



You need subject matter experts from operational teams join the project purely for that information because it's different to actually speaking to someone that's actually doing the job. It puts more trust in the automation when it does come through to the operational teams because they know that they've had an input in it.

PUBLIC SECTOR



The integration of AI and Automation in workplaces needs to be clearly communicated to staff and patients or customers

- Workers say it needs to be transparent when AI or Automation are used to ensure ethical data collection.
- Many believe that especially where personal data is collected and stored, workplaces should be required to obtain consent from anyone subject to these processes.

Many believe there should be regulatory provisions to review and audit algorithms to protect workers' rights

- Stakeholders mentioned the importance of having the ability to review governance documentation, testing the outputs of AI based or automated systems and inspecting the inner workings of these systems.



I think we will have to work out a more explicit process to obtain consent when it comes to essential services where people don't have a choice. Not just sign opaque T&Cs and move on.

NURSING



We as a union pushed for the right for us to look inside the algorithms. We can inspect a company's time and wages records to make sure somebody's being paid properly in WHS' laws we can inspect certain material to make sure that they're working safely. We think there should be a capacity to look inside their algorithm to make sure that it's allocating work safely in a non-discriminatory manner and at a fair amount. they've had an input in it.

STAKEHOLDER - RETAIL

Establishing informed consent processes.

Ability to inspect and investigate AI powered and automated tools.



CHECKS & QUALITY ASSURANCE

Strict quality control in development and training of AI and automated systems.

Extensive checks and testing in real-life deployment situations

- Periodic reviews to establish whether other success metrics are being met e.g., efficiency, productivity, improved patient / customer outcomes, etc.
- Systems and tools need to be subject to thorough checks and testing before being rolled out on a large scale – especially when it comes to the provision of essential services.

Implementing human oversight in decision-making

- Processes should include a human, with the appropriate level of knowledge and training to check system outputs and the ability to override faulty decisions where necessary.

Investing in AI capabilities made in Australia

- Where feasible, Australia should build its own AI capabilities for essential services delivery to ensure jurisdictional control and oversight.



I guess that goes to the testing component. Ideally for something like AI, you want it to be tested to an extent where you're sure that nothing is going to go wrong so that no one has to be held accountable.

PUBLIC SECTOR



I think the risks, the privacy risks, and all of these ethical risks we're discussing, are probably 100 times fold, if it's an external system, but if it's something we've built for purpose and we've built here, I think there's probably a lot more trust.

PUBLIC SECTOR



**DATA SECURITY
& PRIVACY**

Establishing trust in the systems (and the organisations using them).

Risk mitigation and adherence to legal and ethical obligations.

Safeguarding data protection and privacy

- Participants note that it can be difficult for workers and patients or customers to make decisions about their data, when dealing with opaque systems – this means that disclosure and consent processes need to be revised.
- Collection of data should occur on a ‘need-to-know’ basis – ensuring that it is limited to what is absolutely necessary in each context.
- Similarly, use limitations must apply – data can only be used for the purpose for which it was collected. This limitations should include deletion and/or amendment provisions.
- Some recognise a need for government to update information privacy laws since humans are no longer the only or main handler of personal data.



You’ve got to make sure before you introduce something like that, I think it been brought it up, that you’re a hundred percent sure that it protects the customer. At the end of the day, that’s what we are here for is, for customer service or serving citizens.

PUBLIC SECTOR



I’m not sure if Woolworths is recording my voice. And these days, banks use the voice recognition system to authorise payments sometimes. If I stop working there, they’re going to have my voice for eternity. It’s a little bit scary. I feel like they definitely should tell you what they’re going to do with the information and how long they keep it for and stuff like that.

RETAIL

9

Integrating the voice of workers in regulatory processes

Participants believe workers should form a key part in developing good governance around AI and Automation

They are convinced that consulting and including workers early on, and then periodically, would lead to better outcomes for staff, patients and customers and organisations more generally.

“

We'd be happy if there was some regulation that required nurses to be involved in the development of equipment or technology intended for use in nursing and midwifery. That would be a good regulation. Seems obvious to consult with nurses as the end users. A typical patient in a hospital, sees their doctor for about 10 minutes a day, and the rest of the time the people that they're dealing with are the nurses and midwives. So in all care innovations, it's critical that perspective and insight is considered and part of the decision-making.

NURSING

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Executives are general the decision makers, but we are the cogs that get the work done. As we are the ones likely to be using the systems to actually produce the work, I think it's necessary for us to be consulted at all stages of the process - otherwise, and often, it is just money wasted on consultants/testing/bad technology when a better option that was approved by staff could have been tested and implemented from the beginning.

PUBLIC SECTOR

“

It would be nice to actually be consulted prior to any new technologies being put in place to give us the opportunity to voice any concerns and have them addressed. Even after technologies are in place, it would still be nice to check in with us to see if we are happy with it and if not, then what adjustments can be made to increase our satisfaction.

RETAIL

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I believe we should be consulted much more. We do have a "Your Voice" survey, but ultimately, not much gets done with "our voices." I believe that working in retail and being the ones to use these new systems means we should have the overall say.

RETAIL

Workers in the research have a clear sense of where the ethical red lines are - their concern is that they are not being given the opportunity to provide feedback

Most believe that patients and customers should also have some input into development stages.

“

Anything which is low risk can be done by an AI. For example, if you're trying to get a MyGov linking code, trying to link your, let's say Medicare account to MyGov, that's just getting a linking code. Instead of being on the phone talking to a customer rep, trying to get a linking code, you can just have a chat with the chatbot, and you can get that. Anything that is medium and high risk, so anything that impacts payments and livelihoods – needs a human.

PUBLIC SECTOR

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I draw the line at customer data. As soon as you start going into customer personal data, there's a ton of risk there. There's a ton of risk. And even the simple stuff, there's still risk, right? So yeah, I'd be hoping to use it for the general inquiries and stuff like that, but as soon as it becomes personal details, then I'd want to actually have that dealt with by a person.

PUBLIC SECTOR

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Nurses are at the forefront of the care most of the time. The person to best give feedback and analysis of how AI is going and how it's being integrated into the system is going to be the opinions of the nurses and the ones on the floor actually doing this and speaking not patients on a daily basis.

NURSING

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I think for people who work in non-customer facing roles, there's a big benefit to be had from the use of AI. But yeah, I'm generally cautious about how it would be applied to outside customers. I'm personally a big fan of technology, so I think I'm really for it, but just aware of the potential risks with the use.

RETAIL

Participants say workers should ideally be included in the development and testing stage

Workers possess unique insights into the tasks and processes they perform daily. They believe their real-life, 'front-line' experience means they have the ability to interrogate system outputs. Involving them ensures that AI and automation systems are developed with a deep understanding of the real-world contexts in which they will operate.

Workers can identify specific needs, challenges, and pain points that AI and automation could help address. Their input can guide developers in creating solutions that are truly useful and effective.

Participants say staff are more likely to embrace technologies that they had a hand in shaping.



Workers think that AI and Automation should be subject to WHS – or at least be enforced with the same rigor

Many workers initially believe WHS laws do not apply to AI and Automation.. Over the course of the research, however, most participants come to think that AI and Automation can have significant impact on the health, safety and welfare of people at work.

They believe that proper regulation of AI and Automation can help prevent work-related illnesses and accidents, promote healthy work practices and provide guidance around how to safely operate, maintain, and interact with these systems.



I think there's general laws that would apply to AI that people may not quite appreciate applies to it.

So I think the work health and safety laws really do apply to how you implement AI in workplaces, and the results of AI. Workplaces are governed by those laws.

There's consultation requirements about when you introduce new forms of work and I don't think they're being fully met by businesses when it come to AI and Automation yet.

So WHS is another tool that can be used.

STAKEHOLDER - RETAIL

Participants are concerned that governments and lawmakers are playing catch-up when it comes to regulating these systems

They are convinced that consulting and including workers early on would lead to better outcomes for staff, patients and customers and organisations more generally.

“

I know that the government is just chasing its tail in this space and uses a bit of an apologise later approach mixed with an initial risk assessment. Unfortunately, the people who are really informed about AI are not working for the government because they get far more money working in the private sector.

PUBLIC SECTOR

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For me, it was that I feel like no one really knows what's going on, or how it's going to be rolled out or how it's going to be used and that it's just... I think AI just became a thing last year with ChatGPT and everyone's playing catch up.

PUBLIC SECTOR

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In health, I think it's not yet been given a proper and full regulatory framework. Technological change is always going to outpace regulation because we can't regulate speculatively. I appreciate that's always going to be a challenge, but I think our view as an organisation is that government engaging directly with workers and worker representatives over technological change in the coming decade especially is going to be really important.

STAKEHOLDER - NURSING

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I think this race with AI could become very dangerous. It needs to be monitored, governed and watched very carefully. My level of trust that this is currently happening and government is on top of all this is not very high at the moment.

RETAIL

Most believe that unions can play an important role in setting up good governance for AI and regulation

They say they expect the union to advocate for worker's rights and ensure that AI implementation in the workplace does not lead to job displacement or unfair treatment.

Unions can push for transparent communication, adequate training, and safeguards against potential negative impacts on employees.

“

I think they would play an important role in keeping things balanced. I would expect them to point out any areas where members' livelihoods are at stake or people lose a chance to earn a living...but that is going on every day as tech marches on.

RETAIL

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Unions would have a significant factor in ensuring cover for nurses during a situation where AI was utilised and something happened to a patient. Unions would be expected to be understanding of all the legalities and be able to support all nurses who have to use this technology. Unions could also encourage the education and tips on using AI in the workplace.

NURSING

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I would hope that the CPSU would champion the importance of ensuring that any application of automation or AI is done in a transparent, fair and thoroughly tested way, and that public servants involved in the development of these processes are supported to be able to provide frank and fearless advice to the executive and ministers, as was clearly not the case with the previous government as we've seen so horribly with Robodebt.

PUBLIC SECTOR

1

Appendix

Definitions and examples provided for each target industry

NURSING

We define AI as any machine-based or digital systems that take in data and use it to perform advanced tasks that humans have traditionally done, such as producing predictions, advice or decisions. Some AI systems operate autonomously, using machine learning to improve and learn from new data continuously, while others require human intervention to approve or update its outputs.

Here are just some examples of AI and how it is used in nursing.

<p>Advanced medical diagnostic systems that analyse scans, genes or symptom data to diagnose people or make clinical recommendations. This is currently used with CT scans and radiology.</p>	<p>Worker surveillance systems that analyse worker attention, behaviour or movement.</p>	<p>Automated decision-making systems, that use data to analyse a situation and make decisions with little or no human intervention, such automatic approval or decline of an insurance claim.</p>
<p>Facial recognition systems that can help verify identity, or assess mood and personal characteristics, such as for accurate patient identification.</p>	<p>Recommender algorithms that suggest products, services or information to users based on their identity or how they behave.</p>	<p>Object recognition systems that identify objects or create alerts when things are out of place, such as noting if equipment has not been returned.</p>

Other examples of AI that you might regularly interact with are:

- **Sepsis management system** – upon admission, a patients is automatically added to the sepsis management system. This system will flag a patient if they are at significant risk of sepsis.
- **Wearable devices and IOT enabled health monitoring systems** that collect patient data and notify of changes in condition.

PUBLIC SECTOR

We define AI as any machine-based or digital systems that take in data and use it to perform advanced tasks that humans have traditionally done, such as producing predictions, advice or decisions. Some AI systems operate autonomously, using machine learning to improve and learn from new data continuously, while others require human intervention to approve or update its outputs.

Here are just some examples of AI and how it is used in the public sector.

<p>Automated decision-making systems, that use data to analyse a situation and make decisions with little or no human intervention, such automatic approval or decline of an insurance claim.</p>	<p>Worker surveillance systems that analyse worker attention, behaviour or movement.</p>	<p>Chat bots and virtual agents that use AI to chat with you online to answer questions, or more recently, speak to you in natural language and respond accordingly.</p>
<p>Facial recognition systems that can help verify identity, or assess mood and personal characteristics, such as for accurate patient identification.</p>	<p>Recommender algorithms that suggest products, services or information to users based on their identity or how they behave.</p>	<p>Generative AI that you can interact with produce new text, code, sound or images. Examples include chat GPT, open AI or Pixlr.</p>

Other examples of AI that you might regularly interact with are:

- **Tax fraud algorithms** – that suggest cases that should be assessed further for potential tax fraud. Previously, cases would be selected at random, with the use of AI, the cases chosen are more likely to be found to be fraudulent.
- **Social Services uses** - AI is used to improve the efficiency of social service programs such as welfare distribution and homelessness prevention. Predictive analytics help identify individuals at risk or those who may benefit from specific interventions.

RETAIL

We define AI as any machine-based or digital systems that take in data and use it to perform advanced tasks that humans have traditionally done, such as producing predictions, advice or decisions. Some AI systems operate autonomously, using machine learning to improve and learn from new data continuously, while others require human intervention to approve or update its outputs.

Here are just some examples of AI and how it is used in retail.

<p>Automated decision-making systems, that can be used for inventory management and to restock warehouses efficiently. These systems track sales data, seasonal trends, etc. and forecast demand.</p>	<p>Worker surveillance systems that analyse worker attention, behaviour or movement.</p>	<p>Chat bots and virtual agents that use AI to chat with customers online to answer questions, or more recently, speak to customers in natural language and respond accordingly.</p>
<p>Facial recognition systems that can help assess mood and personal characteristics, verify identity, e.g. to pick known thieves out of a crowd.</p>	<p>Recommender algorithms that analyse customer data, such as past purchases, browsing history, demographic information, and preferences, to generate personalized recommendations for individual shoppers.</p>	<p>Generative AI that you can interact with users, produce new text, code, sound or images. Examples include chat GPT, open AI or Pixlr.</p>

Other examples of AI that you might regularly interact with are:

- **Dynamic Pricing** - AI algorithms analyze market conditions, competitor pricing, and customer behavior to adjust prices dynamically.
- **Visual Search** - AI-powered visual search enables customers to search for products using images rather than text.



SCENARIOS TESTED WITH NURSES

Worker monitoring and surveillance

A hospital deploys AI-powered surveillance and monitoring of the workload of nurses. It will provide management with insights into the activities and productivity of each nurse as well as flag potential indicators of burnout.

Critical decisions gone wrong

An AI-powered clinical decision support system is deployed by an ED department in a hospital. Based on historical patient data and clinical best practice rules, the system provides triage recommendations to ED nurses about which patients need to be seen first based on risk.

An indigenous male arrives in the ED with poor vitals, he answers a questionnaire. The triage algorithm recommends he be seen within 4 hrs. Based on the algorithm, the patient was told by the ED nurse he was in a 'moderate risk' category and would be seen within the next few hours. Within 15 mins the patient collapsed in a critical condition and was not able to be resuscitated. The algorithm was later found to be racially biased due to poor training data.

Following recommender algorithm over instinct and professional experience

Your hospital has implemented an AI-powered clinical decision support system that provides treatment recommendations to you about your patients based on the details you usually input into patients' records. You have been told that the system makes recommendations based on historical patient data.

The system is making a recommendation to administer a treatment, however, based on your training and experience, you believe this is not the right treatment. To override this decision, hospital policy requires you to gain the approval of a NUM or senior doctor and document the reason for it.

Impact on patient-centred care

An AI-powered clinical decision support system requires you to input patient data into a tablet each time you have contact with your patient. It not only provides recommended actions for you to take as described above, but also provides a series of suggested conversation prompts in a chat window each time you engage with the patient.

Use of AI to monitor vitals and flag potential risks

Imagine your hospital implements an AI powered decision-making system. This system sits behind your usual data entry and provides suggestions such as if the frequency of vitals checks should be increased/ decreased based on the patient's condition or flagging potential risk factors.

Use of AI to make independent decisions about patient care

How would you feel if your hospital implemented an AI system which could independently make decisions about patient care and treatment plans with the requirement of a doctor or nurse to override the system to alter the treatment plan.



SCENARIOS TESTED WITH PUBLIC SERVANTS

Worker monitoring and surveillance – productivity and performance

Your organisation introduces AI-enabled monitoring and surveillance software to monitor your activity (such as keystroke information - how often the keypad is used, active screen time, time spent on video calls, number of emails sent, number of documents accessed). It provides insights and advice to management about the performance and productivity of employees. This can be used to monitor the workloads of employees to prevent burnout or unequal work division amongst teams.

Critical decisions gone wrong – AI used in program and policy work

AI-enabled software is introduced to analyse historical data and prioritise groups of people across the community who are to become eligible for a new healthcare subsidy. The data used to train the AI system was incomplete and as a consequence, ATSI populations were accidentally deemed ineligible. This means these citizens were not notified of the new subsidy and are automatically rejected if they apply.

AI used in customer service

Imagine that the government implemented AI-powered chatbots to guide citizens through Centrelink application processes. If it was detected that the citizen was stuck or getting frustrated, they would be referred back through the standard telephone support line.

AI-powered transport infrastructure planning - Public private partnership

A public private partnership (PPP) has been struck between government and the private sector to share significant volumes of data about citizen movements for the purposes of AI-powered transport infrastructure planning. This would involve combining large volumes of citizen data collected by several government agencies, with significant amounts customer location data collected by a large corporate entity to train the AI system. The data has been de-identified, however once combined, there may be re-identification risks.

The AI-system developed under the PPP will provide recommendations to both parties about priority locations for new roads, required upgrades, and the frequency of train services.

Use of AI for policy development

Imagine a scenario where AI could be applied to MyHealthRecord data to conduct population-level health research to identify emerging trends in skin cancer diagnosis and treatment to inform the funding of additional facilities and a new public health campaign. This could be conducted by government officials, in partnership with research organisations, or with private HealthTech companies.

Use of AI to fast-track frontline service delivery

Imagine a scenario where a series of natural disasters puts significant pressures on frontline service delivery. The government decides to automate a number of available support services (such as the processing of claims and subsidies) to speed up delivery and redirect resources. Only highly complex or citizens with traumatic circumstances are being prioritised for human engagement to assist them with their claims and accessing support. Biometrics are used to identify people and fast-track access to available support.



SCENARIOS TESTED WITH RETAIL WORKERS

Worker monitoring and surveillance – productivity and performance

Your organisation introduces AI-enabled monitoring and surveillance software to monitor your activity throughout your shift. These systems typically consist of cameras strategically placed throughout the store, including behind cash registers, in aisles, and near stockrooms.

One potential use could be Checkout Monitoring: Cameras positioned above cash registers allow managers to review interactions with customers for quality assurance, ensuring that employees are providing excellent customer service and accurately processing transactions.

In addition to that, managers may use video surveillance to monitor employee productivity and adherence to company policies. For example, they can observe how efficiently employees restock shelves or how well they adhere to safety procedures.

Critical decisions gone wrong – Data breach

Your organisation has a membership program which collects personal information from customers. Your organisation also matches this data about customers with other data available from data brokers and uses an AI system to develop detailed customer profiles along with the 'value' or profitability they bring to the business. This helps your organisation design very detailed targeting and communications strategies to secure more sales. Your organization is impacted by a major data breach and large volumes of personal information is lost to hackers, this includes addresses and contact information of customers. Some customers have gone to great lengths to protect their location due to experiencing domestic violence, they are now distressed and unsure of whether they are safe in their homes.

AI used in HR

Your workplace introduces a new AI system to streamline its hiring processes. Potential employees submit their application and resume through an online portal. The AI system analyses the submitted information and documents in order to produce a short list of potential candidates for interview. The candidates are then interviewed in person by staff in your organisation. The AI system is trained using the resumes of your current employees. As there are more men currently employed by your organisation, the AI system learns to preference men over women in the application screening process.

Customer sentiment analysis

Your workplace introduces a new program of customer sentiment analysis. AI systems are used to identify, collate and analyse customer feedback, social media posts, and online reviews to measure customer sentiment and identify complaints and areas for improvement. If a particular store or staff member receives negative feedback, managers may use that information to take action, including making changes or improvements to their processes, providing additional training or support to stores or staff, or taking disciplinary action against staff members.



SCENARIOS TESTED WITH RETAIL WORKERS

AI chatbot

A new AI chatbot is introduced on your store's website. The AI chatbot can respond to customer queries and provide detailed information about different products. The chatbot has been trained on the internal training material and product information that is provided to staff as well as additional material from the internet. A customer has purchased a product based on information provided to it by the chatbot. However, the information the chatbot provided was wrong and the product was not appropriate for their requirements. The customer comes into your store to complain about the chatbot and demand a refund for the product.


Autonomous robots

New autonomous robots are being used to move stock from the delivery truck into your store's stockroom. Workers no longer use forklifts to complete this work. The robots can move up to 300 kilograms and travel at speeds of up to 6km per hour. They move pallets of stock off the truck and drop it off at designated areas in your stockroom. They are programmed to slow down and stop if a worker passes in front of them. Once the pallet has been delivered, workers then unload the stock from the pallet.




For more information contact:

ALISSA CLEMENT

 0412 620 802

 alissa.clement@essentialmedia.com.au

LLEWELLYN SPINK

 0421 393 999

 llewellyn.spink@uts.edu.au

www.essentialmedia.com.au