

Submission to Jobs and Skills Australia

National Skills Taxonomy Discussion Paper 2024

Thank you for the opportunity to contribute to the development of a National Skills Taxonomy (NST).

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My contribution is based on my experience and research as a career development practitioner. I am a Fellow member of the Career Development Association of Australia and was awarded Life membership in 2019. I specialise in the sense making process and advocate for accurate skills language.

It is vital that career development views are included in these consultations.

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Submission summary

Establishing “a common language” for diverse groups, one that is consistently and accurately understood and used, is difficult to achieve, no matter what agreements stakeholders share. There are many players in the skills space, including some with vested interests in particular viewpoints, such as academic disciplines, consultancies, and professions. Aiming to be national, i.e. “for use across all Australian jurisdictions and potentially beyond”, is admirable, but likely challenging.

The contextual framing of the National Skills Taxonomy (NST) warrants attention, as it affects its value and relevance. The paper states on page two: “Skills development is the backbone of the economy, empowering individuals to transition between jobs and industries, drive productivity and fill skills gaps.”

By casting skills development within the economy, the paper overlooks several important issues:

- Education has a broader role than building work-ready humans.
- Trying to distinguish work-only skills is fraught with definitional and demarcation problems. People develop many skills to become an adult human being. Some of these skills are used in work some of the time, most of the time, or not at all. Skills that are essential for living, such as diverse social skills, are also used in work.
- Australia is facing many challenges - climate change, multiple disasters, threats to democracy (e.g. mis- and disinformation, foreign interference, crumbling social cohesion, and declining public trust in government), geopolitical tensions, family violence, demographic changes, to name a few. Responding to these challenges will, regardless of technological developments, rely on sophisticated, diverse, nuanced social, cultural and emotional skills. Social skills are essential for our survival.

This submission identifies taxonomy flaws that ignore, downplay, and disparage social skills.

Developing the NST could position Australia as a leader in the skills taxonomy field. This can be achieved by adopting these recommendations:

1. That the NST makes no mention of inaccurate and misleading 'soft' and 'hard' skills.
2. That the NST uses 'technical' to mean tools, equipment, machinery, and technology and does not use 'non-technical' nor any other 'non' term.
3. That the NST does not use the term 'generic', replacing it with a descriptor that recognises skills are equally valuable and interrelated, such as 'complementary'.
4. That the concept of 'transferability' be further researched to ensure its use is accurate and suitably nuanced.
5. That the NST includes human rights, civility, ethical decision making, and career management skills.
6. That the NST avoid using a definition of skills that is tied to jobs/work.
7. That the NST is evaluated during development and once it is operational, to assess its validity, value, and use.
8. That the NST is considered, understood, and adopted by all relevant APS departments and agencies to ensure use of a common skills language.

Discussion topics and questions

1. Lessons from existing taxonomies

1.1 What are the key benefits and/or limitations with existing skills taxonomies?

While existing skills taxonomies provide examples of how they can be developed and presented, they demonstrate several critical limitations concerning language use, definitions and boundaries placed around skills in scope, depth, and how to acquire higher level skills.

The range of information provided in taxonomies can be confusing in its layout and meaning. To illustrate, the O*NET listing for *Exercise trainers and group fitness instructors* lists occupation-specific information, with technology skills (14 types of software rather than skills) listed second, giving it priority over other skills and knowledge listed later. The 12 skills required for this work are mainly people related, and there is no reference to safety or human rights.

The [O*NET Content Model](#) is highly detailed, and potentially overwhelming. It provides details of what Technical Skills covers, ('Developed capacities used to design, set-up,

operate, and correct malfunctions involving application of machines or technological systems'), yet this range is not reflected in the example above of exercise trainers and fitness instructors. Also, O*NET uses the term 'soft' skills (discussed below).

The discussion paper recognises that skills language is contested and evolves. In considering any existing and new skill term, NST developers need to ask: Is this term valid (evidence-based), and helpful to understanding a skill?

A significant risk facing NST developers is including and perpetuating biases inherent in current skills language which confuse, diminish, and preference some skills over others.

Several skill terms are invalid and unhelpful, particularly some binary distinctions.

Problematic binary distinctions: 'soft'/'hard' skills¹

Binary distinctions dominate skills discourse. The most common ones are 'soft'/'hard'; technical/non-technical; specialised/generic. These terms have serious limitations.

The 'soft'/'hard' distinction is the most unhelpful, misleading, and erroneous binary in skills discourse. Its flaws are many, but the main ones concerning 'soft' skills are that it is:

- **Imprecise:** There is no agreed definition of what 'soft' skills are.
- **Inaccurate:** Typically, 'soft' is used to refer to social/emotional skills, implying these skills are light-weight. Describing them as 'non-technical' or 'intangible' further implies, inaccurately, that they require little effort and no specialised knowledge.
- **Gender-biased:** Research confirms that children form gender-based ideas about careers early in life. So-called 'soft' skills are not the preserve of girls and women, nor are they less demanding than other skills. Everyone needs a diverse range of skills, regardless of career choice.
- **Based on a false binary:** Labelling skills as either 'soft' or technical/'hard' perpetuates a false binary that ignores the complexities and interrelatedness of skills.
- **Confused with personality traits:** 'Soft' skills may be equated with personality traits, attributes, attitudes, or innate qualities, which is confusing and inaccurate,² with an implied privileging of 'hard' technical skills.

Plus:

- **Employers don't actually ask for 'soft' skills.** Any scan of job advertisements confirms this reality.
- **It ignores the complexity of skills:** Binaries perpetuate a false idea of separateness and unequal value. Yet skills use, even in the most high-tech jobs, is based on using multiple skills simultaneously in situations ranging from the straightforward to the highly complex.

¹ I use inverted commas to signal this is someone else's term and is not valid or appropriate.

² See for example: Sharon C. Bolton, [*Conceptual Confusions: Emotion Work as Skilled Work*](#), 2004

- **It ignores the interrelatedness of skills:** People use their communication skills in tandem with other skills, (including technical skills), such as problem-solving, judgement, cultural awareness, and ethical nous, and draw on knowledge, such as relevant law, safety requirements, and mechanical details to conduct their work tasks. The NST needs to incorporate the interrelationships between occupations, sectors, and industries to aid understanding that no one is an island in their work.³ This is different from transferability of skills. It values the collaboration and communication skills needed to work across disciplines and sectors to address complex issues, particularly in times of crisis.⁴

‘Soft’ skills may seem like a handy conceptual shorthand, but it reduces complexity and stifles more nuanced, well-informed analysis of how skills are interrelated and equally valuable.⁵

How to remove the flawed ‘soft’/‘hard’ binary from circulation

By continuing to use seriously flawed language like the ‘soft’/‘hard’ binary, we do everyone a disservice. Without accurate skills language, people struggle to identify their skills and how they might apply in the workplace. Plus, workforce challenges, like skills shortages, will continue so long as some skills are privileged over others.

A solution to this issue is to rethink skills categories and distinctions, to drop using unhelpful distinctions, and to start recognising the complexities and relatedness of skills.

An important step is to take the ‘soft’/‘hard’ skills binary out of circulation. There are alternatives to using ‘soft’ skills, including:

- Assert what skills are called, and resist mentioning the range of other terms used as alternatives. (e.g. ‘The NST identifies a range of important workplace skills, recognising that these skills may be applied in other life situations, and uses skill-specific terms only, such as social and emotional skills.’)
- When discussing specific skills, use specific skill words, like communication skills, problem-solving skills, interpersonal skills.
- When grouping skills that relate to working with people, use social or interpersonal skills and use this term consistently.
- When discussing or referencing other reports and research on skills, avoid adopting or repeating any use of ‘soft’ skills. Even saying “so-called ‘soft’ skills” keeps the term in circulation.
- Include style guidelines in NST resources, making clear what choices have been made and that when using the NST, other (rejected) terms are not to be used.

³ Fostering interrelatedness awareness is vital given we face multiple complex, interconnected risks that are tackled in a fragmented rather than holistic way. See [A World Call to Action](#).

⁴ See [Shining a light on occupational inter-relationships](#).

⁵ See [Rethinking Skills Discourse: A new narrative](#).

Recommendation 1: That the NST makes no mention of inaccurate and misleading ‘soft’ and ‘hard’ skills.

Problematic binary distinctions: Technical/non-technical

This binary is problematic for several reasons.

- A confusing and inconsistent mix of terms is used, reflected in the international skills taxonomies. ‘Technical’ is used to cover the use of tools, machinery, equipment and technology, and in other cases is limited to digital technology.
- The prefix ‘non’ means not, absence of, or lacking something. Anything in a skill non-category is automatically implied to be lesser, even if not intended. Using the binary technical/non-technical helps to reinforce a status differential in skills.
- The boundary between what are technical and non-technical skills is not clear-cut. For example, while a fitness instructor may draw on ‘technical’ knowledge and skills to prepare a fitness class, (such as knowledge of a range of exercises that cater for different levels of fitness and different parts of the body, safety issues, how to use equipment), if they can’t model the exercises accurately, explain them clearly, and correct others’ performance in an appropriate manner, then their ability to fulfil the role is significantly diminished. Another example is the various types of technician jobs, many of which require a range of skills in addition to relevant professional expertise, such as verbal and written communication, interpersonal skills, teamwork, problem solving.⁶
- Some technical skills are common to many jobs, such as an ability to use parts of the Microsoft suite. Most tech jobs involve the use of social skills, not just via technology (i.e. digital communication), but this is largely overlooked or ignored in skill classifications. People who are skilled at using digital technology may not be skilled in using other means of communication (phone, in-person), an issue identified by [research](#) about student journalists.

Recommendation 2: That the NST uses ‘technical’ to mean tools, equipment, machinery, and technology, and does not use ‘non-technical’ nor any other ‘non’ term.

Problematic binary distinctions: Specialised/generic

Generic is a problematic term.

- There is no agreed list of generic skills, although they do include common elements.
- Generic skills implies that they involve no specialisation. Like ‘soft’ skills, describing a skill as ‘generic’ suggests it is of a general nature, has no particular distinctive quality, that everyone has acquired it and can use it effectively at some unspecified level. This label is inaccurate and diminishes the skills listed under it.
- When employers complain that graduates lack generic skills, what do they mean, and what is it about job applicants that they assess, and how, that enables them to reach this conclusion? Jobs and Skills Australia’s report [How employers recruit](#) provides

⁶ For example, veterinary, laboratory, pharmacy, ultrasound, dental, ophthalmology technicians.

data on the importance employers place on good communication and interpersonal skills, cultural fit, personality and look. It also provides data on the role of interviews/informal chats in assessing skills. Small to medium businesses use interviews/informal chats more than large ones, raising a question about how skilled people are in conducting their recruitment processes. Difficulties in finding staff may have more to do with biased and/or ineffective chats, than the absence of skills.

- Employers and industry argue graduates need to have ‘advanced generic skills’. What is not clear is what is meant by ‘advanced’ and how employers distinguish basic from advanced skills. If this distinction is retained, then the NST will need to specify the difference. Plus, there’s the issue of whether tertiary educators have the knowledge, skills and time to teach and train in these skills.
- A further question is whether all tertiary students need the same level of ‘advanced generic skill’. Research suggests that this may not be the case. Before adopting the use of generic skills, consider research that rejects this term, and whether such skills are inseparable from other skills.⁷
- Some groupings of generic skills include foundational (or basic) skills (including literacy and numeracy). As the name suggests, these are a different order of skills from others listed, and underpin some of them. It is well established that insufficient foundation skills have wide ramifications for health outcomes, social participation, informed citizenry, and making informed legal and financial decisions. Including foundational skills under generic skills is unhelpful and misleading.

Recommendation 3: That the NST does not use the term ‘generic’, replacing it with a descriptor that recognises skills are equally valuable and interrelated, such as ‘complementary’.

Transferability of skills

Broad statements are made about the transferability of generic skills, but this is also a contested term.⁸

[O*NET](#) uses the term ‘cross-functional’, meaning: ‘Developed capacities that facilitate performance of activities that occur across jobs’. This may be a more useful term than transferable.

Recommendation 4: That the concept of ‘transferability’ be further researched to ensure its use is accurate and suitably nuanced.

Skills and knowledge not included in current taxonomies

The NST needs to recognise and incorporate skills related to:

⁷ See for example: Geoffrey Hinchliffe, *Situating Skills*, [Journal of Philosophy of Education](#), (2002) and Stephen Lamb, Esther Doecke and Quentin Maire, *Key skills for the 21st century*, (2017)

⁸ See Stephen Lamb, Esther Doecke and Quentin Maire, *Key skills for the 21st century*, (2017)

- **Human rights:** these [rights and freedoms](#) are linked to essential workplace behaviours. Some are linked to democratic values, recognised as vital when we are faced with crises, enabling people to cooperate and collaborate.
- **Civility and civics:** Many Australians are experiencing slowly eroding conditions for community life and connectedness, and need, as argued by the [Strengthening Democracy Taskforce](#), civic literacy and civic connection.
- **Ethical decision making:** Since technologies are not neutral in their development and use, and problems with social media, artificial intelligence, cyber security are well-established,⁹ the NST needs to recognise the importance of ethical knowledge to Australia's future.

The Australian College of Nursing's (ACN) [Position statement on artificial intelligence](#) advocates for the patient-centric, ethical and safe use of AI in nursing. The statement acknowledges the potential benefits as well as critical issues, and identifies 16 ethical considerations, including data privacy, data bias, equitable access, professional autonomy, security, human oversight, and safety, issues which are well-documented.

What needs to be noted here is that the ACN statement refers to the work of the [Australian Digital Health Agency](#) (its Nursing and Midwifery Digital Health Capability Framework and National Policy Roadmap for Artificial Intelligence in Healthcare). This reference raises a question as to whether the development of the NST will take into account the various frameworks that already exist across diverse professions?

The NST also needs to include **career management skills**.¹⁰

Tables 1 and 2 on page 10 of the Discussion Paper include 'Enhance career planning and development' as a use case. People don't always understand what skill terms mean nor how they are used in a new job, hence the need for career management skills and career advice. If the NST is to support life-long learning and enhance occupational mobility, then it needs to include the career development competencies needed to achieve this.

In [Navigating Life's Career Transitions](#), the Career Development Association Australia (CDAA) explains the complexities and challenges of various career transitions Australians face, and puts forward ideas on how to ensure everyone builds a solid foundation in career management skills. The report identifies eight categories of challenges faced by people during transitions, including not understanding skill terminology.¹¹ Without career

⁹ See for example: Jordan Guiao, *Disconnect*; Peter Lewis and Jordan Guiao, *Public Square Project*; Sherry Turkle, *Alone Together*; Nicholas Carr, *The Shallows*; Marek Kowalkiewicz, *The Economy of Algorithms*; Larry Rosen, *iDisorder* and *Rewired*; Adam Gazzaley and Larry Rosen, *The Distracted Mind*.

¹⁰ Career Management Skills: The knowledge, skills and behaviours required by all citizens to manage and develop their learning and employment across their working lives. These skills include gathering, analysing, synthesising and organising self, educational and occupational information as well as the skills for making and implementing career decisions and transitions.

¹¹ Other documents relevant to career management skills are: [The National Career Development Strategy](#) and the [Australian Blueprint for Career Development](#).

management skills, people facing industry transitions are likely to be disadvantaged, and miss out on opportunities.

Recommendation 5: That the NST includes human rights, civility, ethical decision making, and career management skills.

1.2 What features from existing skills taxonomies are important to retain or address in a new NST?

Siloed approaches to skills are likely to continue as, for example academic disciplines and influence-positioning consultancies, continue to perpetuate and/or redefine terminology. 'Disparate and disconnected ways of understanding skills' is likely to continue and remain a 'contested space'.

A useful NST that has application in the Australian context for the next decade needs to be tailored, and widely adopted so that multiple stakeholders will use it consistently and accurately without re-introducing inappropriate 'old' terminology listed in this submission in 1.1 above.

Specific features recommended are:

- Avoid using a definition of skills that is tied to jobs/work (e.g. 'skills have relevance to work and learning' p. 3, O*NET, Singapore Skills Framework). People acquire and use skills in various contexts which are relevant to work (e.g. volunteering, parenting, caring) but which are discounted with a work focus, thereby disadvantaging segments of the community (e.g. women, young people, people with disabilities).
- Avoid using problematic terms set out in 1.1 above.
- Acknowledge that skills are relevant to the wider social and cultural context, not just education, employment and the economy.

Recommendation 6: That the NST avoid using a definition of skills that is tied to jobs/work.

2. Potential use cases for a NST

2.1 Where could an NST best add value for individuals, employers, and educators and how?

The best value an NST could provide is to:

- rectify the imbalances in skills taxonomies as outlined under 1.1 above, particularly removing any use of 'soft'/'hard' skills, and reconsidering use of other binaries and the concept of transferability.
- Include those skills and knowledge currently overlooked: human rights, civility and civics, ethical decision making, career management.

2.2 What are the potential unintended consequences or challenges of an NST that will need to be overcome?

Challenges to an effective NST (i.e consistently and accurately used, and beneficial to end-users) include:

- Failure to be widely adopted.
- Misunderstood and/or confusion with various other skill frameworks in Australia (e.g. Core, Foundation, Employability).
- Limited benefit to individual users due to inaccuracy, incompleteness, navigation and application difficulties.
- Limited benefit to employers who continue to rely on informal chats during recruitment processes, uninformed by the taxonomy.

Without effective measurement and evaluation, it will be impossible to know if an NST is effective in achieving its vision.

2.3 What do you believe should be the overarching vision for the NST?

Achieving the vision as currently stated is dependent on many people and organisations adopting and using the taxonomy as intended. It is also relevant to the policies and programs of many government departments and agencies. Parts of the vision (lifelong learning, career transitions) are dependent on including career management skills in the NST.

2.4 What guiding principles should underpin the taxonomy? Are there any non-negotiables?

Comprehensive: ‘effectively describe skills for all occupations ... including foundation skills, employability skills, knowledge, personal attributes, and job-specific skills’. This is only valid if the definitional problems outlined under 1.1 above are acted on.

Evolutionary: ‘..build upon existing skills systems and enhance the roles of unions, employer groups, and industry experts in informing skilling needs, while providing a unified framework for aggregated analysis.’ The list of roles needs to include career development practitioners and employment service providers who help tertiary students, adults, and workers in transition to identify their skills and potential opportunities.

Integrative: ‘facilitate understanding of transferable skills’ This is only valid if the research on this concept (transferable) is considered and a more nuanced and accurate concept used in the NST.

An essential principle is *Evaluated*. The NST needs to be evaluated during development as well as once it is operational, so that its validity, value and use is assessed.

Recommendation 7: That the NST is evaluated during development and once it is operational, to assess its validity, value, and use.

2.5 How should principles be prioritised if trade-offs are required?

The principle Evaluated is non-negotiable.

3. Building a NST: Design considerations

3.1 What should an NST look like?

Definitions and nomenclature:

Adopt recommendations 1 to 6.

Level of granularity:

The issue of granularity is challenging, particularly when balancing useful detail against overwhelming detail. Communication skills is generally captured by a small number of sub-skills, and taxonomies do not capture the breadth of skills that can be defined as 'communication skills'.¹²

As an example, take the skill of interviewing people,¹³ a skill that has common elements that are expressed differently depending on context (e.g. recruitment, crime suspects, medical patients, news story). The Australian Skills Classification (ASC) defines 'interview people to gather information' as a specialist task for Police Officer (0.8% of time and 15.6% for Detective), for a Journalist 'interview others for news' (3.3%), and for a GP it is implied by 'diagnose medical conditions'.

A search by skills gives the skill cluster 'Collect information from people', under 'Communication and collaboration'. This then leads to the same specialist tasks.

A comparable search on O*NET identifies the skill of 'Active listening', involving 'asking questions as appropriate' for all three jobs.

Placing a skill as part of a task does not specify that a skill is required to perform the task nor what it is. Reducing interviewing to 'asking questions as appropriate' implies asking questions is the only part of the interviewing skill, and assumes knowledge of what 'appropriate' means.

Many jobs involve interviewing, both formally and informally. Regardless of how often interviewing is performed (i.e. percentage of time), the skill still needs to be performed well.

¹² See [More than 100 skills in communicating](#).

¹³ The skill of interviewing includes knowledge of diverse types of questions and when and how to use them effectively; strategic preparation based on desired outcome, context, relationship with the interviewee; flexibility; rapport-building; emotional competence; problem-solving; critical thinking; moral and ethical decision making; communication skills; conflict resolution; empathy, creativity.

A question for the NST is: how well will the taxonomy convey the scope and demands of any specific skill?

To be useful, the NST needs richer skill descriptions than currently provided in taxonomies, to make skills clearer and more explicit.

3.2 Are there any additional features or key considerations for an effective design of the NST to support its use?

Use of the NST will in part depend on continuing consultation, building understanding of its use and application, and providing resources in diverse formats (e.g printable guidelines, podcasts, videos, webinars etc) that appeal to diverse audiences.

The NST needs to be of value to net-zero transitions, to provide easy-to-use information to support workers impacted, and to assist those who may struggle to find jobs.¹⁴

4. Building a NST: Implementation considerations

4.1 What are the most appropriate ongoing governance arrangements for the NST?

Governance arrangements need to include mechanisms that ensure the NST is considered, understood, and adopted by all relevant APS departments and agencies, otherwise there will be no common language. If organisations such as the Productivity Commission and Treasury use inaccurate skills language (e.g. ‘soft’ skills),¹⁵ if contributors to government processes such as members of the Jobs and Skills Councils don’t model the new skills language, if unhelpful consultancy reports continue to be referenced,¹⁶ then this NST work will be short-changed.

Recommendation 8: That the NST is considered, understood, and adopted by all relevant APS departments and agencies to ensure use of a common skills language.

Final comment

Skill terms have major impacts on how work is understood. Building the NST provides the opportunity to break with tradition and reset skills information in an Australian context, one that recognises the importance and value of all skills, using valid, unbiased terminology.

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¹⁴ See Mandala, [The Net Zero Transition: how hard will it be for workers in coal mines to find new jobs?](#) Research Note 21, 2023.

¹⁵ Treasury’s Employment White Paper *Working Future* and the Productivity Commission’s 5 Year Productivity Inquiry Interim Report 5: *From learning to growth*, both used ‘soft’ skills.

¹⁶ See [Nine reasons to ignore reports discussing ‘soft’ skills](#).