

CADI: A cluster approach to the development of identity

Lucy Sattler

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An introduction to the Cluster Approach to the Development of Identity (CADI) and a rationale for the approach.

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Career development theories have evolved significantly since their inception, reflecting changes in the nature of work, societal values, and our understanding of human psychology. This document presents a rationale for the Cluster Approach to the Development of Identity (CADI), a novel dialogic framework designed to address the limitations of traditional approaches and meet the needs of individuals navigating contemporary career landscapes.

The framework focuses on the continuous development of identity, encouraging individuals to explore multiple career paths within related clusters while ensuring alignment with their evolving sense of self. CADI empowers people to take a proactive, methodical approach to their career, recognising the dynamic and interconnected nature of both careers and identity.

The way we work has changed

Since Parson started pairing people with jobs based on their traits over one hundred years ago, career development has focused on matching people with their environment (Brown, 2002; Parsons, 1909), a model which has remained relatively unchanged since the 1930s (Athanasou, 2007), and which assumed that having a specific personality type or interest would lead to success in certain fields (Gati, 1991).

Yet over the intervening years the world of work has changed dramatically, and we now recognise that individuals are continually and dynamically authoring their own career story, based on their unique context, in a form which would be unrecognisable to those who developed the first psychometric assessments based on person-environment fit (Craig, 2009; McMahon, 2014, 2017). Individuals with a wide range of skills and interests coexist

harmoniously within the one occupational environment (Nye et al., 2018), and we need to think beyond homogenous interests to understand how individuals construct their careers.

Recent social constructionist approaches to career development recognise that vocational identity is not composed of fixed and defined traits which can be uncovered through psychometric assessment, but rather constructed through language and social interaction (Burr, 2015a, 2015b). Career Construction Theory (CCT), developed by Savickas (2008), exemplifies this narrative turn. CCT views careers as a means of implementing one's self-concept and constructing meaning through work. It emphasises the importance of adaptability and the continuous process of integrating new experiences into one's career narrative.

Similarly, the Systems Theory Framework (STF) proposed by Patton and McMahon (2014) conceptualises career development as a complex system of influences, including individual, social, and environmental-societal factors. This holistic approach acknowledges the multifaceted nature of career decision-making and the interconnectedness of various life domains. McMahon (2017) emphasises that work, as a systemic activity, influences our lives, families, values, and status in society. Recent developments in narrative career counselling have further emphasised the role of dialogical self in career development. McIlveen and Healy (2024) argue that individuals construct their career identities through ongoing internal dialogues between different aspects of the self, highlighting the dynamic and multifaceted nature of career identity.

The need for a new approach

The changing nature of work in the 21st century necessitates new approaches to career development. Traditional models based on stability and linear progression are ill-suited to contemporary 'knowledge societies' characterised by flexibility, mobility, and uncertainty (Savickas et al., 2009). The modern work environment is marked by several key shifts that fundamentally alter how individuals navigate their careers.

Firstly, increased job mobility has become the norm, with individuals now changing jobs and

even careers multiple times throughout their lives (Education Council, 2020). This contrasts sharply with the traditional notion of a single, lifelong career path. Secondly, the rise of the gig economy has led to a proliferation of short-term contracts and freelance work, requiring individuals to constantly adapt and market their skills in a dynamic job market (Deloitte Australia, 2019). Thirdly, rapid technological change continues to transform the workplace, with many jobs being reshaped or made obsolete by automation and artificial intelligence (Behrend et al., 2022). This necessitates continuous learning and skill development to remain relevant in the job market. Lastly, globalisation has expanded the scope of careers beyond national borders, with individual career paths increasingly influenced by global economic trends and cross-cultural dynamics (Tilman Habermas et al., 2008).

These changes underscore the need for career development approaches that promote adaptability and lifelong learning. Moreover, recent meta-analyses have questioned the predictive validity of interest-based approaches for job satisfaction and performance. Hoff et al. (K. Hoff et al., 2018) found only a modest correlation between interest congruence and job satisfaction, suggesting the need for more comprehensive frameworks. Bowles (2008) suggested that congruence may need to be reconceptualised to remain relevant, and this was supported by Earl's (2014) meta-analysis which found that, when congruence does exist, it is often small and insufficient to predict job satisfaction. Interests also correlate lowly with other key indicators of job satisfaction, such as skills, or values (Dawis, 2005), and are also quickly sacrificed by individuals making career decisions (Athanasou, 2009).

There is also a potential risk of oversimplification with models which focus on interest, as these overlook other equally important considerations, such as work environment, or values (Hanna & Rounds, 2020; Heesacker et al., 1988; Nilsen et al., 2014). There are social justice considerations flowing from the limited cross-cultural validation of many major classification systems (Eyles et al., 2019), such as the potential for misalignment in marginalised students (Garibay, 2020), and evidence that they reinforce gender stereotypes (Ludwikowski et al., 2020; Su et al., 2009). It is critical that any model used in career development focuses on utility for inclusive and considered guidance (Revelle, 2024). Both CCT and the STF emphasise the importance of considering broader contextual factors in career development, including cultural, social, and economic influences. This recognition of context aligns with

the growing awareness that careers are deeply embedded in wider life narratives and social structures.

In contrast, a narrative approach to career development allows the individual to write their own autobiographical story of their lives, including their career journey, which is grounded in their specific context (Bruner, 1985; McAdams & McLean, 2013). This process is influenced by cultural norms (Arthur, 2024; Arulmani, 2014; Hammack, 2008; Leong & Pearce, 2014), social interactions (Burr, 2015a; LaPointe, 2010; McLean et al., 2007; Spencer et al., 2012), relationships with significant influencers (Fivush, 2011; Ho, 2019; McIlveen & Healy, 2024; Reese & Robertson, 2019), occupational choices and work experiences (Hartung & Santilli, 2024; K. A. Hoff et al., 2019; Savickas et al., 2009), and significant (and sometimes unexpected) life events (Cardoso et al., 2021; Krumboltz, 2009; Lilgendahl et al., 2013; Pals, 2006).

Individuals are empowered to interpret their careers as the 'author' of their own life, and write each new chapter as they go, so they can respond to career change when it occurs (Gati & Kulcsár, 2021; Winslade, 2011). The words used play a crucial role in narrative identity development and career construction, as career stories are shaped by the linguistic resources available (Burr, 2015b; LaPointe, 2010), which have the power to either limit or expand career possibilities (Arthur, 2024; Savickas et al., 2009). Language can help people articulate future career pathways (Lent & Brown, 2020), address power dynamics (McIlveen & Patton, 2007), and create an inclusive and diverse space for career development (Arulmani, 2014).

The Cluster Approach to the Development of Identity (CADI)

The CADI Clusters are six flexible and dynamic groups composed of people who share similar preferred ways of working. Rather than matching individuals with specific occupations, the six CADI Clusters are defined by their alignment with core technical and transferable skill sets, common tasks, shared values, and work contexts, which encourages open exploration within broader groups of related roles. This approach recognises the transferability of skills, values, and experiences across and between different careers,

promoting adaptability and learning across the lifespan. Individuals are not provided with concrete answers or 'matched' with specific careers, allowing them to determine for themselves how to use the Clusters to inform their career narrative, if they choose to do so. The language of the Clusters is flexible and inclusive, and as CADI does not specifically link the Clusters to individual occupations, the individual is unable to transfer the assumptions and biases they hold easily to the CADI model.

A cluster-based approach to understanding career choice is not novel; Frantz (1973), Wonacott (1974), and Herzog (1974) created just one such model inspired by the early work of Roe (1957), and Holland (1959) in the United States to support career education in light of changes in the workforce. Much of the work surrounding clusters stems from Social Identity Theory (Hogg, 2016), where individuals are clustered into groups through social categorisation, a process which reduces complexity, improves the organisation of socially-relevant attributes and behaviour, and provides a model for understanding and predicting behaviour (Ellemers & Haslam, 2012). People within clusters share defining features, which allow them to be classified in particular ways, and these similarities help reinforce social identity within the cluster while reinforcing differences between clusters (Tajfel, 1974). Individual alignment with a cluster can reinforce social identity, but this isn't fixed, and as people take on new roles and experiences they may shift across and between clusters over the course of their life, or even between contexts (Turner & Reynolds, 2012). Social Identity approaches which fostered the development of groups within educational settings have been shown to have both wellbeing and practical implications (Bizumic et al., 2009; Dunstone et al., 2024).

With CADI, the individual is positioned as the expert in their own life, and free to align with the Clusters they prefer, and then use the Clusters to inform their career narrative in a manner of their choosing (Turner & Reynolds, 2012). This empowers individuals to construct meaningful career narratives that align with their evolving sense of identity, contrasting with traditional approaches that rely heavily on external assessments and expert guidance.

CADI also adopts a holistic perspective, drawing on the Systems Theory Framework (Patton & McMahon, 2014) to consider career development within the broader context of an

individual's life. This acknowledges the influence of various systemic factors on career trajectories. Lastly, CADI focuses on narrative coherence, helping individuals create coherent life stories that integrate their past experiences, present circumstances, and future aspirations. This aligns with narrative identity theory as proposed by McAdams & McLean (2013)

Defining the CADI Clusters

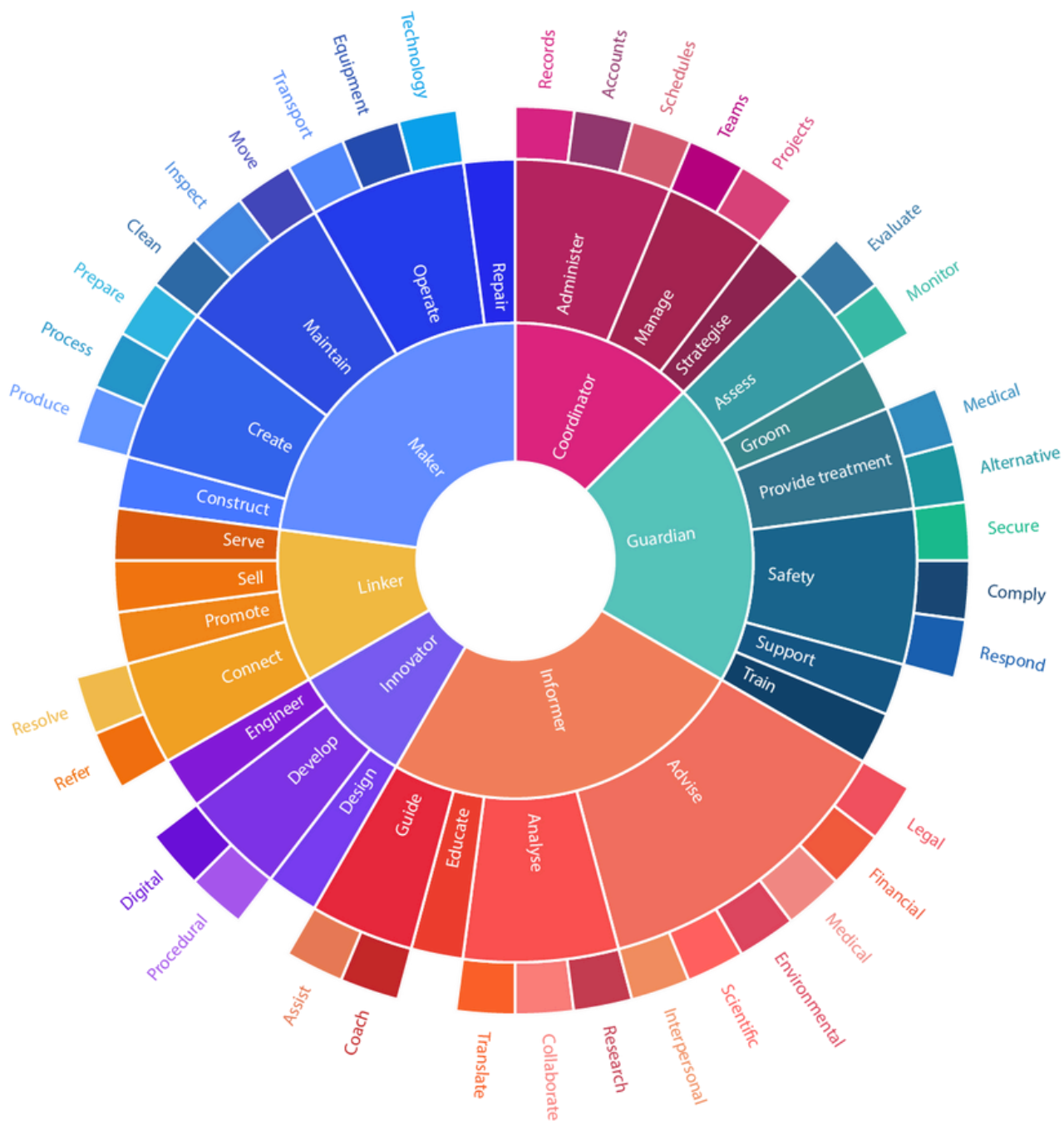
Unlike existing grouping models which are based on one factor, such as the Holland Codes (Holland, 1997) or Roe's Classification of Occupations (Roe et al., 1966), the CADI Clusters are defined based on four key factors; technical and transferable skills, common tasks, work environment, and values. While the approach elaborates on each of these factors in specific ways, CADI is iterative and it is expected that these factors will continue to evolve and develop over time.

Shared Technical and Transferable Skills, and Core Tasks

First, individuals within each Cluster are seen to share similar core technical and transferable skill sets. Changes in the way we work over the past few years have brought transferable skill sets to the fore, and recognised that these skills are applied in similar ways across a range of occupations (Mitchell et al., 2010; World Economic Forum, 2019) and can facilitate occupational mobility (Snell et al., 2016). It is anticipated that transferable skills (also known as 'core', 'human', 'future', 'enabling', or 'soft' skills) will become even more important to employability in coming years (Foundation for Young Australians, 2017), and educational systems have begun to incorporate transferable skills into the curriculum in a variety of ways (ACARA, 2019).

There have been multiple attempts to define and classify these skills, including a variety of national skills taxonomies (Gallagher et al., 2022; National Skills Commission, 2021), but, while these are ongoing and we have yet to find a common global language, the CADI Clusters have been mapped to the existing Australian Skills Classification as a starting point. This work led to the identification of common tasks which take place within each Cluster, and the development of the Cluster Wheel.

Figure 1
The CADI Cluster Wheel



The Clusters are designed to be able to evolve and adapt to ongoing changes in the world of work, and, as such, it is anticipated that future skills frameworks will be able to be mapped to the CADI Clusters in due course.

Common Work Environments

The work environment plays a significant role in job satisfaction and describes both the physical and psycho-social context of employment. In the development of the O*NET Content Model, Peterson et al. (1995) broke this context into three sections; social interactions, physical work conditions, and structural job characteristics.

Figure 2

The CADI Contexts Matrix

	Linkers	Guardians	Makers	Innovators	Coordinators	Informers
Interpersonal Relationships						
Communication	High	High	Medium	Medium	High	High
Role Relationships	Medium	Medium	Medium	Medium	High	Medium
Responsibility for Others	Low	High	Low	Low	High	Medium
Conflictual Contact	Medium	Medium	Low	Low	Medium	Low
Physical Work Conditions						
Work Setting	Medium	High	High	Low	Low	Medium
Environmental Conditions	Low	Medium	High	Medium	Low	Low
Job Hazards	Low	High	High	Medium	Low	Low
Body Positioning	Low	High	High	Medium	Low	Low
Work Attire	Low	High	High	Medium	Low	Low
Structural Job Characteristics						
Criticality of Position	Medium	High	Medium	Medium	High	Medium
Routine vs. Challenging Work	Medium	High	Medium	High	Medium	High
Competition	Medium	Low	Low	Medium	Medium	Low
Pace and Scheduling	Medium	Medium	Medium	High	High	Medium

Others have varied this structure to suit their purposes when considering work design, while noting that job characteristics overlap (Morgeson & Humphrey, 2006), and need to be constantly reviewed in light of evolutions in the labour market (Wang et al., 2021). While the categories recommended by O*NET provide a valuable model, they must be considered in context and in light of concerns about the collection of information (Handel, 2016). The CADI Clusters are based on the high-level work contexts identified in the O*NET Content Model, while remaining flexible so as to accommodate future evolution in the world of work.

Similar Values

Values differ from interests as they represent 'standards' for what individuals are willing to accept in their career choices. Unlike interests, which may be many and varied, values tend to be stable and fewer in number, and can differ in meaning across social contexts as they are essentially grounded within what matters in a person's family and community (Porfeli & Vondracek, 2007). As they are durable and stable, they can inform decision making, and should be considered in career choices as alignment with values can influence how we feel about our work (Eccles & Wigfield, 2002).

Values are identified in the O*NET Content Model (Peterson et al., 1995), based on work conducted by Dawis (2005) in the development of the Minnesota Theory of Work Adjustment, however the Schwartz values are more commonly referred to in psychology literature (Schwartz, 2012). These ten values have been validated widely across cultures and contexts, and relate values to behaviours and attitudes which impact on career narrative development.

Figure 3

The CADI Values Matrix

	Linkers	Guardians	Makers	Innovators	Coordinators	Informers
Self-Direction	Average	Average	Average	Strong	Strong	Average
Stimulation	Average	Average	Average	Strong	Low	Low
Hedonism	Average	Low	Low	Average	Average	Low
Achievement	Strong	Strong	Low	Strong	Strong	Low
Power	Average	Average	Low	Average	Strong	Low
Security	Low	Strong	Strong	Average	Low	Average
Conformity	Low	Average	Average	Low	Strong	Strong
Tradition	Low	Strong	Strong	Low	Low	Average
Benevolence	Average	Strong	Low	Low	Average	Strong
Universalism	Strong	Strong	Average	Low	Strong	Low

Unique Individuals in Dynamic Clusters

In mapping the Clusters to these four factors within a flexible framework, CADI empowers the individual to determine for themselves where the Clusters fit within their career narrative (Turner & Reynolds, 2012). Rather than being limited by granular language around specific and static occupations, individuals are free to conceptualise their career journey in their own voice across skills, values, and contexts, and then use the narrative they create to make confident career decisions.

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