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The Human Revolution: Introducing Human Competencies

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Introduction: A New Paradigm for Humanity in the Digital Era

It is time for the human revolution.

Eventually then all at once, we are deep into the digital era. Digital technologies permeate every aspect of our lives, it is transforming organisations and revolutionising the world as we know it. We are at the edge of technological advancement where artificial intelligence (AI) has progressed to have exceptional capabilities in mimicking human intellect and creativity. We find ourselves resembling “ancient brains in a high-tech world”, as described by the neuroscientist Dr Adam Gazzaley.

From the first industrial revolution in 1784, technology takes the spotlight in driving the revolution of industries and societies. Now in 2023, we stand on the edge of technological advancement where humans are posed with a critical question – **what truly defines our humanity in this ever-evolving digital era?**

Amidst the technological boom, humans are challenged with the big question of what it means to be human in the digital era. The path ahead requires us to take a great leap into a radically different world, and for many, it is a fearful leap. Fundamentally, technology is created to improve human lives, not to replace human lives. To leverage the potential of technology for good, humans need to re-connect with ourselves and master the unique human abilities.

Moving forward, unique human potential must and will take the spotlight. Parallel to the industrial revolutions, we are stepping into the Human Revolution. Understanding the essence of what it means to be human becomes not just a philosophical exploration, but a pressing and critical matter to drive a sustainable, progressive future for humanity.

This white paper explores the intersection where technology and humanity meet, and introduces the concept of “Human Competencies” to develop unique human potential. Not only will the development and mastery of human competencies enable digital transformation, it will empower human transformation to create a better future – one at a time, all at once.

The Problems We Face: Modern World, Modern Challenges

Dramatic, dynamic and ever-evolving – that's the modern world we live in. The digital era brings many vibrant opportunities for humanity. At the same time, it comes with unprecedented challenges and complexities. This section explores the problems central to humanity's agenda on the collective and individual level, spanning from sustainable growth to individuals' purpose.

The Global Landscape: VUCA and the Impact of IR4.0

In the digital era, the only constant is change. This accelerating pace of change gives rise to a Volatile, Uncertain, Complex, and Ambiguous (VUCA) environment.

- **Volatility:** The rapid changes occurring all around the world, be it in technology, economy, or society.
- **Uncertainty:** Arises from unpredictable events, such as economic fluctuations, policy changes, technological advancement, and shifting job markets.
- **Complexity:** The intricate interconnections and multifaceted factors shaped by the impact of technology integration into every aspect of modern life.
- **Ambiguity:** The lack of clarity due to the growing size of information and possibilities, often riddled with contradictions.

With the rise of Industrial Revolution 4.0 (IR4.0) technologies such as artificial intelligence, virtual reality and socio-behavioural algorithms, our physical, digital and biological realities are fusing¹. Not only are these next generation technologies changing the way we live and socialise, it is fundamentally changing the way we work.

The job market is drastically shifting. AI is improving its capabilities in mimicking humans. Routine and manual jobs are being replaced by automation. Emerging jobs roles² require talents to...

- (1) Strategically use or create the next generation technologies
 - *e.g. AI and Machine Learning Specialists, Data Analysts and Scientists*
- (2) Navigate the digital era to chart a sustainable and progressive future
 - *e.g. Digital Transformation Specialists and Sustainability Specialists.*

There is a clear demarcation between the required job competencies before and during IR4.0. Previously, talents can thrive by mastering technical competencies. In the modern era, technical competencies alone are insufficient. To thrive in the modern era, talents in their respective fields must master human competencies such as critical thinking, originality and innovation, emotional management, effective communication and other human-centred competencies. This marks the beginning of the Human Revolution.

Organisational Challenges: Digital Transformation

“There is no alternative to digital transformation. Visionary companies will carve out new strategic options for themselves – those that don’t adapt, will fail.”

~ Jeff Bezos, Founder of Amazon

Organisations are faced with an ultimatum – digitalise to adapt, or eventually be eliminated. Those who adopt digital technologies have the competitive edge of being more productive, efficient, innovative, and one step ahead of the curve. Digitalisation optimises profits, elevates the quality of value creation and spawns new opportunities for future growth.

When digital transformation is strategically executed, the difference will not be merely incremental – it will create **breakthrough** growth. The crucial question is – are organisations driven by a trend without a clear strategy in place? Or is digital transformation an intentional decision stemming from thorough understanding of the potential of a digitally-transformed organisation?

Leading a digital organisation comes with many layers of challenge and complexity. From the big picture to ground level, leaders must exercise careful consideration to intentionally lead a digital organisation:

- What is the **vision** of the digitally-transformed version of the organisation?
- What is the meaning of the existence (**purpose**) of the organisation in the digital era?
- How will **value creation** differ with the integration of digital technology?
- How will **organisation design** need to transform to create breakthrough growth?
- On an individual level, how will the **roles and competencies** adapt? On a team level, how will the **team dynamics** shift in terms of communication and collaboration?
- What are the **values, mindset and culture** that will be central to transformation?

Among the key considerations for digital transformation, it becomes evident that *which technology to deploy* is only a small part of the bigger picture. More importantly, leaders need to understand how to leverage the potential of technology by...

- (1) Synergising human potential
- (2) Restrategising organisation design
- (3) Realigning organisation resources

It is quickly evident that the priority is shifting to the human aspects of an organisation. At the core of the Human Revolution is the dynamic balance and synergy between technological innovation and human potential. It calls for humanity to boldly re-imagine the future, re-design organisations, re-define leadership and talent.

Individual Challenges: Agility, Innovation, Motivation (AIM)

On an individual level, living in the digital era changes our thought patterns and introduces complex socioemotional situations into our lives. Paradoxes and dilemmas become a common occurrence. Despite living in a highly connected world, people find themselves feeling disconnected. Decision making becomes harder as the number of possibilities continue to expand. As quality of life increases, many find themselves feeling more unsettled and have a growing urge for a sense of meaning and fulfilment.

In terms of career, individuals are challenged to adapt in a constantly changing environment. Many are fearful of being replaced by AI. Navigating a career in the digital era requires people to chart and re-chart the direction, to develop and re-develop competencies, to continuously reinvent themselves. To survive and thrive in the digital era, individuals need to move towards self-mastery in terms of Agility, Innovation and Motivation (AIM):

Agility: In the modern era, there is no such thing as “I’ve learnt enough”. For talents to adapt to change and be the changemakers, they need agility to flexibly adapt their mind, competencies and strategies to everchanging situations. Agility is rooted in the spirit of continuous learning, unlearning and relearning.

Innovation: While AI can mimic human intellect and creativity, it cannot do it unprompted. Humans’ original thoughts and ideas serve as the seed for AI to generate novel outputs. When humans synergise our ability of higher-order thinking with AI’s capabilities, we can innovate at a neck-breaking speed to solve real problems and create new opportunities for humanity.

Motivation: Low motivation and proactivity are common issues in the modern era. Purely extrinsic motivation derived from monetary gain and external validation is insufficient. Every human has an urge to feel alive and motivated at will – this intrinsic motivation is derived from the opportunity to develop one’s unique potential to create uniquely meaningful value.

At the forefront of the Human Revolution are the people. When every individual is self-resourceful to ignite their own unique potential, it will paint our realities with colourful experiences, drive innovation for a shared future, and flourish a world full of life energy.

The Gap We Address: Remembering What Makes Us Human

What defines our humanity? It is what technology lacks. It is what differentiates humans from other animals. It is what made it possible for humans to build the modern world from nothing. Imagination, innovation, communication, reflection, navigation are among a few unique human abilities. We call these unique human abilities – “**Human Competencies**”.

To gain some clues into what defines our humanity, we need to understand the areas where machines are unable to replace human intervention. A McKinsey's study³ pinpointed several notable areas in complex decision-making, strategic goal setting, fostering purpose, communicating & collaborating, and nurturing high levels of creativity and innovation.

While machines excel in routine tasks and logic-driven tasks, humans possess the remarkable capacity for higher-level cognitive functions, emotions and social connections. The dynamic interplay between these human meta-cognitive abilities enable humans to be agile, innovative and unique.

Metacognition^{4,5}, the ability to “think about thinking”, is the defining ability of humans. While cognition is automatic, metacognition requires intentionality to activate and develop. Metacognition enables humans to be **self-aware** and therefore able to exercise **self-agency** - the ability to intentionally shape our internal thought process, external behaviour, and continuously adjust our strategies to create the best possible outcomes.

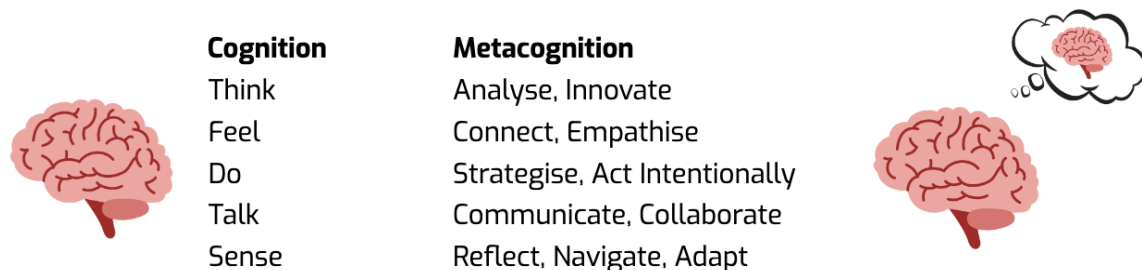


Fig 1: Difference between cognition and metacognition

Emotions, the capacity to feel deeply, is another defining human trait. Emotions significantly influence how we perceive information, including its relevance, importance and the personal meaning we attach to it. This innate ability of humans to connect information with emotional context goes beyond the capabilities of artificial intelligence. Machines operate on consistent data patterns, while humans’ decision making and perception are influenced by emotions⁶ which often come in the form of complex and conflicting sets of feelings.

While technology evolves, the core of our humanity remains rooted in our consciousness, emotional depth and cognitive agility. Remembering what makes us human, the mastery of human competencies is the key driver of the Human Revolution.

Defining Human Competencies: Igniting Human Potential

We define “Human Competencies” as metacognitive abilities unique to humans which enable us to be **agile, innovative** and **unique** in the digital era and beyond. Human competencies focus on developing higher-order cognitive abilities to ignite human potential and empower unique value creation. With human competencies, we become **self-resourceful**, empowering ourselves to intentionally navigate life and career, creating better outcomes while contributing positively to the greater society.

The Difference Between “Soft Skills” and “Human Competencies”

While human competencies might seem similar to soft skills, it is fundamentally different in nature. The emphasis of soft skills is on developing the external self, focusing on external behaviours and actions such as how to present oneself, or following suggested steps to create a desired outcome. On the other hand, human competencies focus on developing the internal *and* external self. By developing self from within, it shapes our external behaviour in a way that is aligned and connected with our inner self.

When an individual develops only their external self without nurturing their internal self, it can lead to superficial improvements and issues like unstable self-worth and inflated ego. For instance, blindly applying communication techniques using template steps may result in inauthenticity and disconnection.

Moreover, a person is a comprehensive whole - neglecting the development of certain aspects can hinder holistic growth. For example, developing thinking skills that focus on critical and analytical thinking without nurturing creative thinking can lead to an overemphasis on logic and facts, causing an individual to become overly rational like a robot and lose the essence of human agility.

The lack of depth in the pre-existing approach calls for the urgent need for a more comprehensive understanding of what truly constitutes human competencies. Developing human competencies empower us to intentionally navigate the modern world with self-agency, instead of passively reacting to external circumstances. This white paper proposes the **Human Agility Framework** – a **holistic** and **integrated** framework on Human Competencies to unleash human potential.

The Human Agility Framework: Unleashing Human Potential

According to Cambridge Dictionary, “agile” refers to the ability to deal with new situations or changes quickly and successfully. The concept of agility is analogous to “move like water”; water is continuously morphing according to its changing environment to keep moving forward despite the landscape or obstacles.

Agility embodies the capacity to move with ease, adapt fluidly, and respond adeptly to shifting circumstances. While the term “agility” lacks a universal definition, it shares intersections with related concepts like adaptability, innovation, resilience, and proactivity.

Agile and agility emerged as pivotal concepts across various domains, including business and technology. The Agile Manifesto⁷ introduced in 2001 brought a transformative approach to delivering value and fostering customer collaboration.

Extending beyond the popular applications of “agile” in software development and project management, this concept can translate to “Human Agility” to drive the Human Revolution. Agile individuals can intentionally and proactively seize opportunities and navigate novel circumstances to ride on the waves of change to thrive in ever-changing landscapes.

Framework Overview

The Human Agility Framework is a holistic framework for developing human competencies and empowering self-resourcefulness through five interconnected domains: Self-Awareness and Mindset, Thinking Agility, Emotional Agility, Relational Agility, Behavioural Agility. The framework is presented in **Fig 2**. A brief explanation of each domain is given.

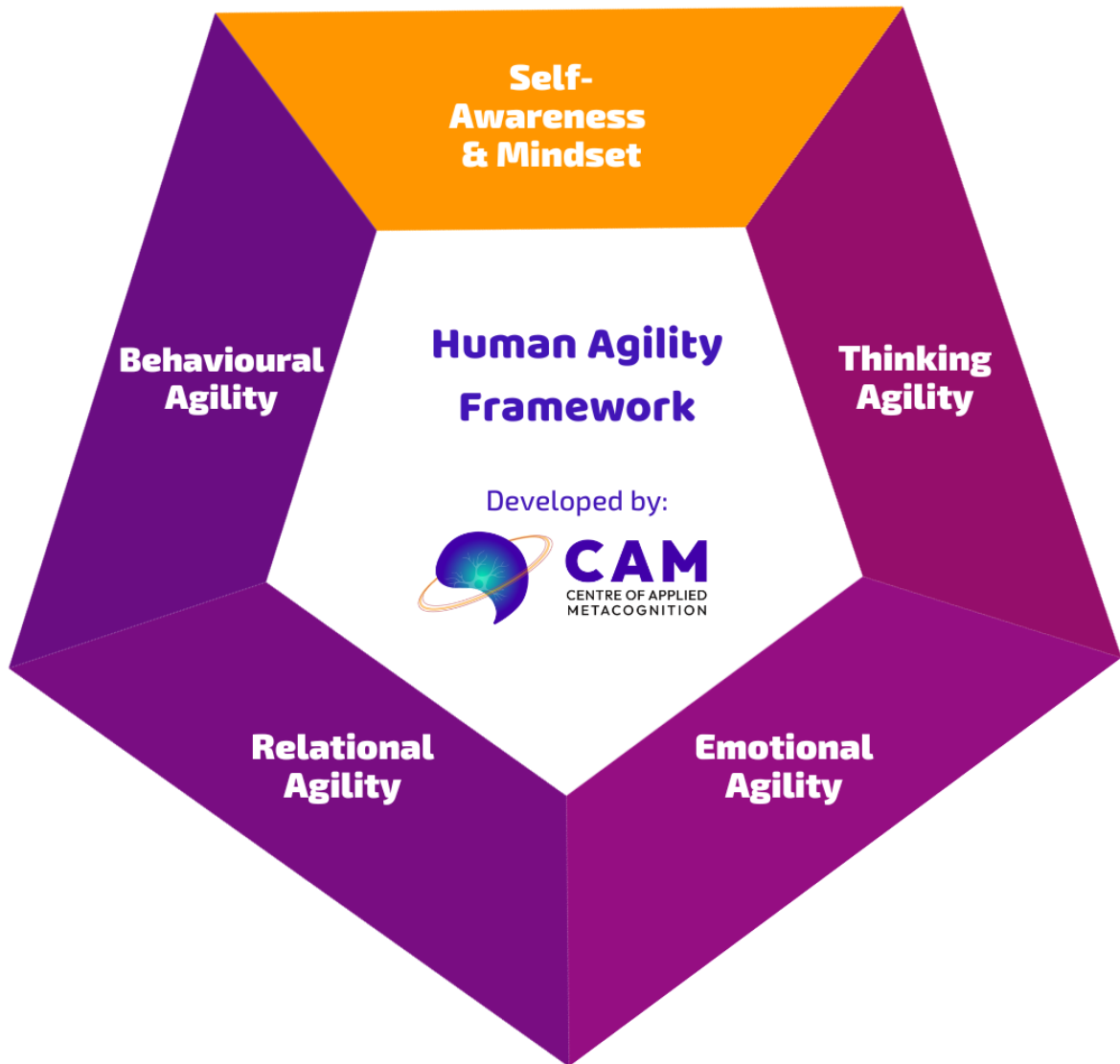


Fig 2: The Human Agility Framework

Self-Awareness and Mindset

Developing human agility starts with developing self-awareness and fostering a resourceful mindset. **Self-awareness**⁸ is rooted in the fundamental ability to recognise oneself as distinct from others. Activating self-awareness is analogous to “switching on the light” in our mind. It enables individuals to consciously self-monitor one’s own internal thoughts and emotions, interpret external experiences, and construct an internal model of the world.

Self-awareness is the core of humans' metacognitive abilities. It begins to develop in humans at around 15-18 months of age⁹ and can be continuously cultivated throughout life. While it may be taken for granted by humans, machines and many seemingly intelligent animals do not possess self-awareness¹⁰. This unique ability enables humans to be intentional and agile in adapting our mind, behaviour and strategies.

On the other hand, mindset is analogous to the “lens” through which we perceive the world. **Mindset**¹¹ is the underlying thought pattern which shapes our perspectives in different situations and mould our pre-existing conceptions about ourselves and the world. The way we think deeply modulates our motivation and behaviour. When the choice of mindset is rooted in a resourceful state of mind, it empowers individuals to embrace challenges, adopt a spirit of lifelong learning and courageously seize opportunities for growth.

Self-awareness and mindset serve as the gateway to unlock human agility. Grounded self-understanding integrated with resourceful mindset lays the foundation to activate self-agency. When we can understand our own thoughts, emotions and motivations, we can intentionally shape our thinking, feeling and behaviour towards creating a better future, continuously improving oneself, and igniting our own unique potential.

Thinking Agility

In essence, Thinking Agility is about enhancing our cognitive strategies in strategically manoeuvring our thought process to achieve desired outcomes. There are two main components in thinking:

- **Critical Thinking:** The structured way of thinking rooted in logical reasoning to form an understanding, opinion or decision. It entails the ability to analyse, synthesise and evaluate information facilitated by deductive and inductive reasoning.
- **Creative Thinking:** The spontaneous generation of ideas coupled with purposeful evaluation to create original understanding and novel ideas. It entails the ability to link seemingly disparate sets of pre-existing knowledge, concepts, memory and emotions.

It is essential to understand that both forms of thinking are interconnected. The synergistic integration of critical thinking and creative thinking is crucial for a **holistic** thought process, which enables individuals to:

- Challenge assumptions and biases
- Form well-rounded understanding
- Arrive at balanced conclusions
- Solve complex problems
- Create new opportunities
- Make strategic decisions

Through dynamic consideration of the multifaceted angles of thinking¹² – such as logic, intuition, emotions, possibilities, benefits and risks – individuals can flexibly adjust the depth, breadth, pattern and direction of their thought process to activate Thinking Agility.

Emotional Agility

Emotional Agility includes the abilities of Emotional Awareness and Emotional Regulation, which begins with the courage to connect authentically with our emotions.

Emotional Awareness involves recognising and understanding our own emotions, and extending this understanding to others. This entails perceiving and accurately identifying emotional states, expressions, and underlying motivations. In other words, it connotes empathy towards self and others.

Emotional Regulation is the ability to effectively monitor and adjust one's emotional responses through verbal and non-verbal expressions. This involves the acknowledgement of our own emotions and selecting an appropriate emotional response in an authentic manner.

Emotional Awareness and Emotional Regulation are interconnected. Emotional Awareness offers insights into our emotional experiences and how it influences our thoughts, motivations and behaviours. This insight enables people to learn and adapt in personal and social situations through Emotional Regulation.

Crucially, Emotional Agility is not about suppressing emotions, it is about wholeheartedly connecting with our emotions to navigate the complexities of human experiences and interactions. By activating Emotional Agility, people can flexibly adapt their emotional responses to make thoughtful and authentic choices rather than impulsive actions. Emotions can be channelled constructively to enhance learning, decision-making and relationship building. When continuously practised, it maintains inner balance and long-term mental wellbeing.

Relational Agility

Relational Agility is the skillful art of fostering meaningful connections through effective communication, collaboration, and forming social bonds. Human beings are inherently interdependent. Therefore, it is essential to navigate our relationships thoughtfully, whether it is with family, friends, romantic partners, or work colleagues.

Communication is a core part of relationships. **Effective communication** creates mutual understanding of one another's realities, including thoughts, feelings, motivations and intentions. Beyond verbal communication, active listening and noticing nonverbal cues are equally crucial. Effective communication is key to understanding boundaries, resolving conflicts and aligning needs and expectations within relationships.

Shared values form the foundation of a healthy and strong relationship – crucially, the values of empathy, curiosity, honesty, mutual respect and trust. Empathy builds an emotional connection rooted in openness and vulnerability. Curiosity is key to understanding others' realities without pre-conceived judgement and assumption. Honesty, mutual respect and trust are the cornerstones to create a safe space.

Relational Agility guides us towards fulfilling and enriching connections. It empowers people to build meaningful relationships that can withstand challenges and changing dynamics, ultimately flourishing communities of diverse individuals and fostering a collective spirit in building a better future for humanity.

Behavioural Agility

Behavioral Agility is about strategically adapting our behaviour to create better outcomes. As humans, we have limited time and energy in our lives. Therefore, intentional behaviour design is crucial to make meaningful and effective use of our time and energy. It translates our aspirations into reality. When met with changing situations, Behavioural Agility enables us to recalibrate the present and rechart the future.

Behavioural Agility has three key considerations:

- **Purpose:** Generating intrinsic motivation by channelling time and energy into meaningful pursuits, which can be an individual initiative or as part of a shared purpose in a community.
- **Goals:** Envisioning the desired future and setting goals to set the plans in motion, thereby turn aspirations into reality. This requires strategic allocation and alignment of resources towards achievement of the goal.
- **Habits:** Intentionally setting constructive habits and breaking destructive habits to optimise our limited time and energy. Habits enable people to upkeep consistent effort for continuous incremental progress towards creating desired outcomes.

Behavioral Agility aligns our internal self with external behaviour to intentionally build a better future. Purpose, goals and habits continuously change and adapt as we move through different phases of lives and navigate changing environments. By mastering Behavioural Agility, it empowers us to move forward intentionally, meaningfully and authentically, and as a result, create a sense of long-term fulfilment and contentment.

Interconnections

Although the five domains are presented individually, they are intricately connected. Success in one domain cannot be separated from other domains. The most effective way to develop Human Agility is to build a strong foundation in all five domains – Self-Awareness and Mindset, Thinking Agility, Emotional Agility, Relational Agility and Behavioural Agility.

For example:

- Self-Awareness about one's own thought process and biases is crucial to exercise holistic thinking in Thinking Agility.
- Effective communication in Relational Agility requires empathy from Emotional Agility and critical thinking from Thinking Agility.
- Emotional Agility enables individuals to connect with themselves deeply, which in turn allows them to authentically exercise Behavioural Agility.

The interconnections between the five Human Agility domains illustrate the holistic approach to developing human competencies. It aims to transform people from **inside-out**. Mastering human competencies empowers individuals to be agile, innovative and unique. It elevates people to be truly future-ready, to lead at the forefront of the Human Revolution.

Concluding Remarks

In this white paper, we discussed the exponential growth of technology and how it has transformed every aspect of human lives. In this modern world, humanity is posed with modern challenges. The world we live in is volatile, uncertain, complex and ambiguous. The world as we know it, is changing in every moment. Organisations are challenged to digitally transform. Every human must continuously adapt and reinvent themselves to survive and thrive in the digital era.

Coming back to the question –

What truly defines our humanity in this ever-evolving digital era?

Deep diving into what differentiates humans from machines, it uncovers the core of our humanity – consciousness, emotional depth and metacognitive potential. The importance of Human Competencies becomes painstakingly obvious. As we step into the Human Revolution, the spotlight must and will move to unleashing human potential.

The Human Agility Framework is a holistic and integrated approach to developing Human Competencies. We identified five domains within the framework: Self-Awareness and Mindset, Thinking Agility, Emotional Agility, Relational Agility and Behavioural Agility. By mastering and synergising these five domains, it empowers people to self-empower to ignite their own unique potential.

In the Human Revolution, there is no need to fear for machines replacing humans. Rather, it is about learning how to leverage the potential of technology by synergising the human potential. By mastering human competencies, individuals will be empowered to create unique value regardless of choice of industry or role. Leaders will be empowered to build and support a sustainable, human-centred organisation. It will power organisations to create breakthrough growth and spawn new opportunities. Beyond economic returns, the Human Revolution can raise the quality of life for all. As a society, it will harness collective potential, flourish shared prosperity and shape a progressive future for humankind.

It is time to re-imagine the future.

It is time to unveil human potential.

It is time for the Human Revolution.

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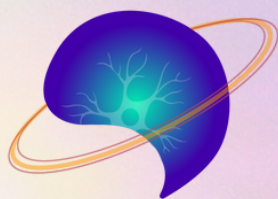
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About Centre of Applied Metacognition (CAM)

The Centre of Applied Metacognition (CAM) is a research centre at Otti NeuroLearning Institute, committed to *advance research in cultivating human metacognition* for the sustainable progression of humanity. CAM strives to make Applied Brain Sciences accessible to the public, translating complex research into practical resources that empower individuals and communities to cultivate and harness the power of metacognition.



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