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FACT SHEET

FUTURE WORLD OF WORK SERIES:

**FUTURE HUMAN LIFESPAN AND
THE EMPLOYEE LIFECYCLE**

INTRODUCTION

This factsheet is the fourth instalment in the series exploring the Future World of Work, serving as a prelude to the HR community engagements that the SABPP is planning for on the 'HR Standards in the Future World of Work'. The previous factsheets explored the future forms of organisations, the evolving definition of employees, and the employee in and of the future. The present factsheet focuses in on the future lifespan, specifically the themes of (1) longevity dividend and divide and (2) transhuman and post-human lives and capabilities. It then explores some of the implications for talent and workforce strategies, in particular the employee lifecycle. This is in the form of signposts of the future world of work.

FUTURE LIFESPAN

Longevity dividend and divide

Transhuman and post-human lives and capabilities

EMPLOYEE LIFE CYCLE

Segmented employee value proposition

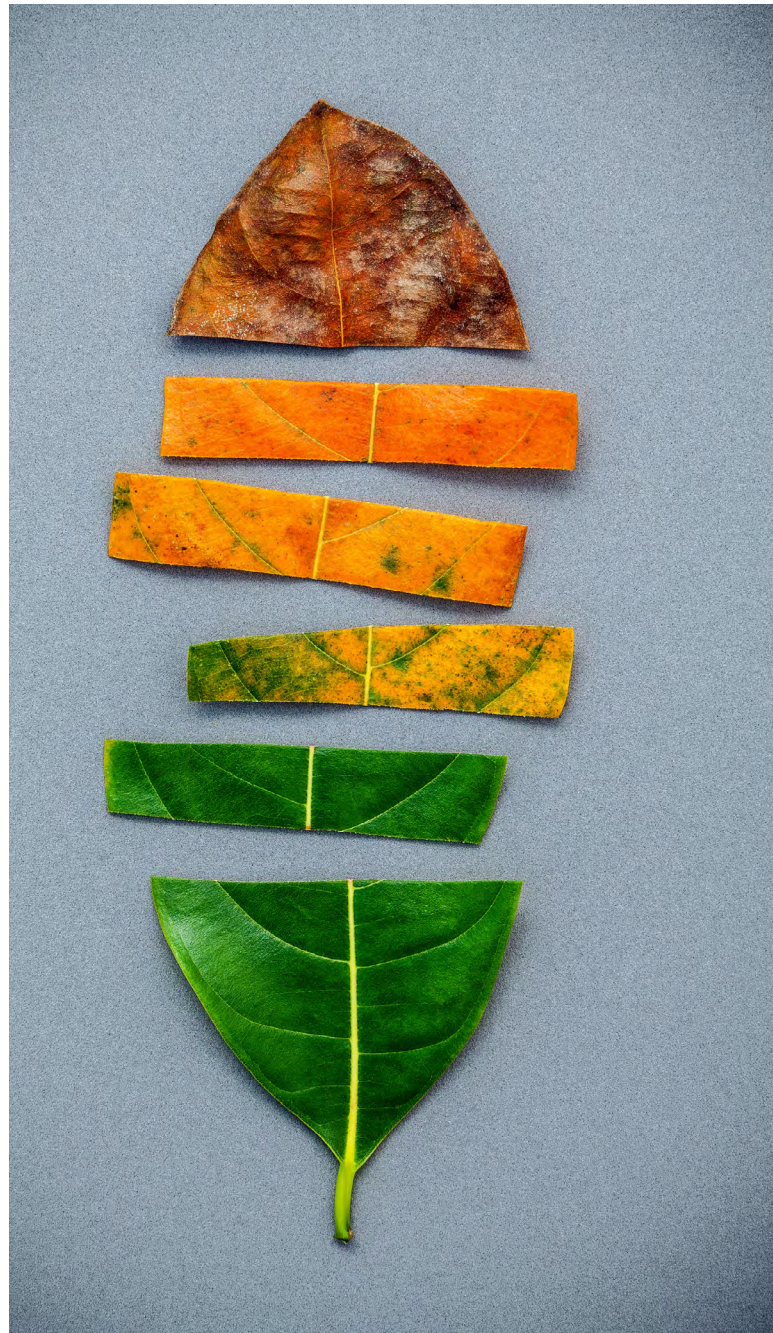
Just transition

Psychological contracts

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CONCLUSION

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FUTURE LIFESPAN

Perusing through popular articles on the human lifespan, one could probably surmise that, as a species, we humans are now living far longer than our forebearers. This seems, at first sight, common sense to us in our present; and we attribute it mainly to changes in socio-economic and health conditions, medicine, technologies, and other factors related to industrialisation. Critically, these changes help decrease the chances of mortality during the critical childhood years and fosters early development in those years. These improve our overall human life expectancy as a species. However, on reflection, it may not be as clear-cut as it seems.

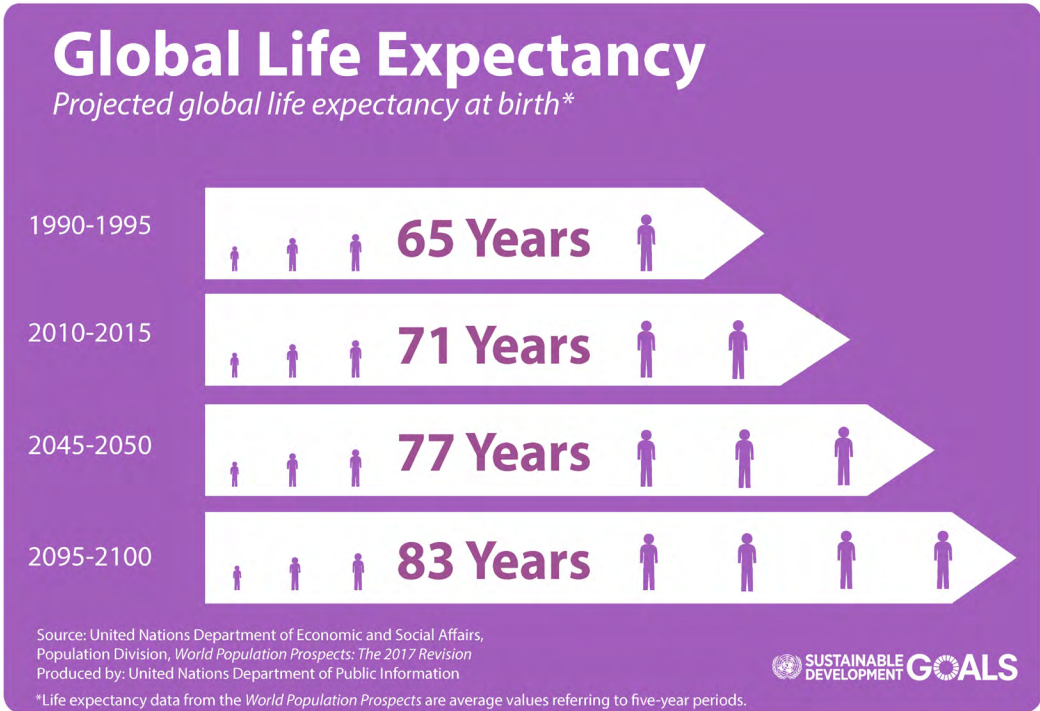
The issue lies with our everyday use of the terms of *lifespan* and *life expectancy*, and how we think about longevity and life extension. Life expectancy is a statistical construct. It is an *average* number of years that an individual in a population can expect to live (Aburto, Villavicencio, Basellini, Kjærgaard, & Vaupel, 2020; Ruggeri, 2018; van Raalte, Sasson, & Martikainen, 2018; Weiner, 2020). This average though can hide significant variation in lifespans and inequality of lifespans within a population or country as well as across populations or countries. It can also lead to false conclusions that in earlier times humans did not live past forty or fifty years in age, and that those of us in the present are living longer. For example, the BBC article by Ruggeri (2018) points out that members of the aristocracy or higher social classes in early Rome and Asia, for example, did live to seventy and eighty years of age. (This is based on written records available, which can be limiting as records from other early societies in other continents may not have survived or are not made available in mainstream publications.)

This means that over time the *average* human life expectancy across countries has increased and that *more* humans are experiencing longer life spans. However, there are important variations, subgroup trends, and inequalities underlying the

average statistic. For example, there are important gender differences and differences due to social class and where one lives. Another example is that given our modern lifestyles and also the patterns of drug use/abuse and sexually transmitted diseases, there have been important shifts in mortality and, therefore, lifespan of adults in their middle adult ages. Consider now the impact of the COVID pandemic on the mortality of different age groups and the implications for life expectancy and life span.

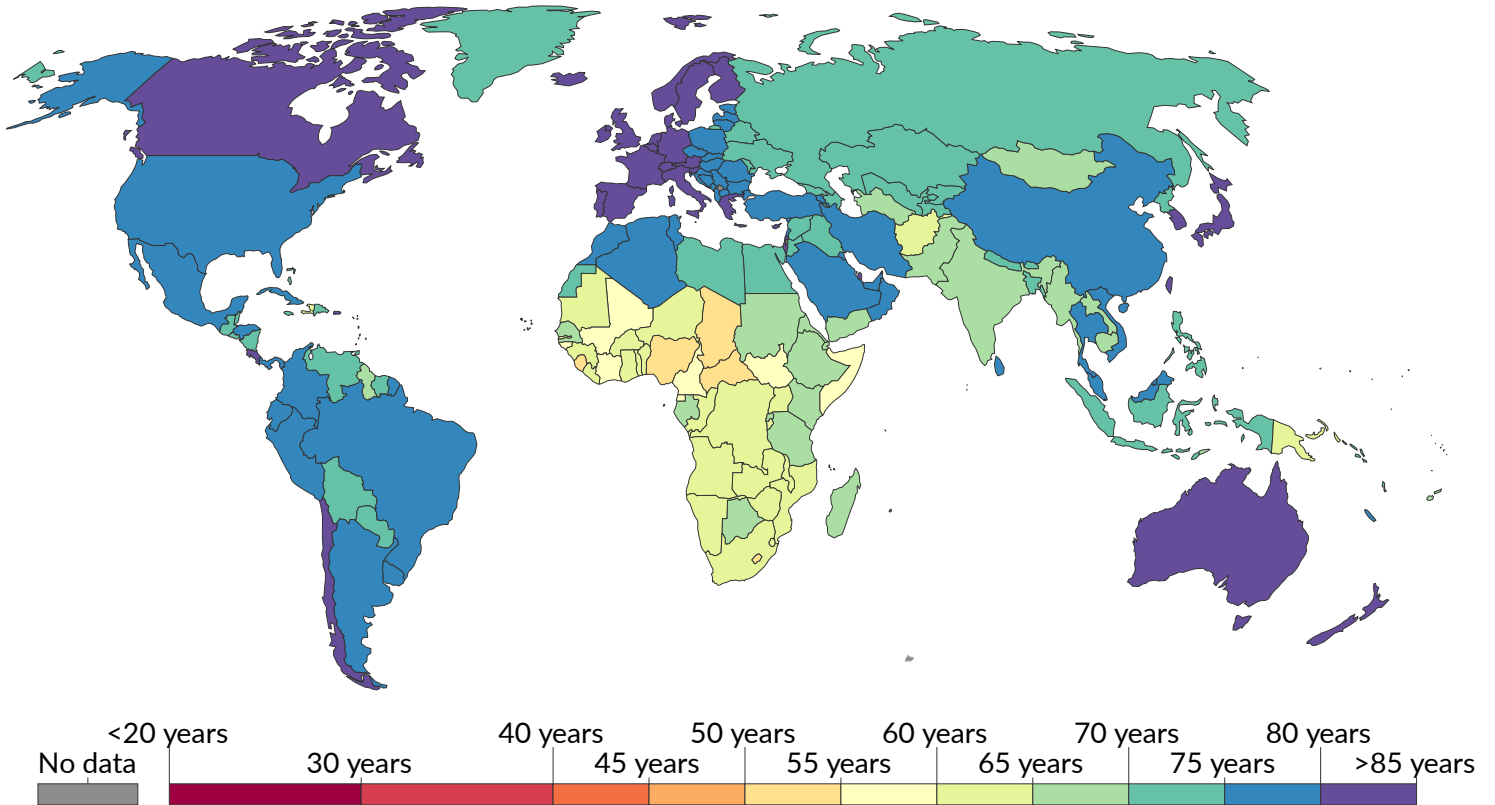
LONGEVITY DIVIDEND AND DIVIDE

The average increase in life expectancy over time across the globe can be seen as a *longevity dividend* from our modern conditions, developed expertise, technologies, and factors related to industrialisation. This means mortality and age are becoming, relatively, less of a constraint or limit over time. However, we need to add that there is also a *longevity divide* given the inequalities of lifespans within and across countries. This can be akin to the 'digital divide' as we consider the possible future worlds and the future world of work. The digital divide refers to the lack of access to information communication technologies as well as the inequalities in terms of access to, and use of, these technologies (see the **factsheet on workforce transitions**).



Source: United Nations Department of Economic and Social Affairs

LIFE EXPECTANCY, 2019



Source: Roser, Ortiz-Ospina, & Ritchie (2013)



TRANSHUMAN AND POST-HUMAN LIVES AND CAPABILITIES

A social and philosophical movement, Transhumanism sees technology as the key to unlock the limits of human beings and then further evolve beyond our embodied beings (Bostrom, 2005). That is, unlocking and moving beyond the physical limit of our bodies' capabilities, the limit to our lifespan imposed by the mortality of our bodies, and the limit of our cognitive and reasoning capabilities. The transhumanists predict that there will be a point of technology singularity when the capabilities of various technologies surpass that of human beings (see the [factsheet on HR's place in the fourth industrial revolution](#)). This means that the technologies will result first in the augmentation of humans by machines and then it will lead ultimately to transhuman and later post-human lives and capabilities from the merger of human and machine.

"It is their belief that we can and should *eradicate ageing* as a cause of *death*; that we can and should use technology to *augment* our bodies and our minds; that we can and should *merge* with machines, *remaking* ourselves, finally, in the image of our own higher *ideals*" (italics added, Mark O'Connell quoted in McKie (2018))

Thus, the augmentation and the going beyond our current human capabilities is not just in our physical bodies, but also in our cognition, values, ethics, and behaviours. It goes to the heart of what we value as humans and as future post-humans, and how we define and measure what is good (Nadella, 2017). Will we measure human, transhuman, or post-human lives in terms of the quantum of enhanced functionality and optimisation of capabilities? Will it be ethical to require the alteration our embodied beings? Will our ethics be defined by utility or the quantifications of how many can be enhanced or optimised? Is the digital divide relevant here? Or are these narrow ways of framing the future and the value and values of human/post-humans? Should we be considering the good of all beings, whether organic or not?

Consider the Utilitarian normative theory of ethics and the questions it poses on how we think about 'good' and from whose perspective and for whom this good is defined.

*"Utilitarianism is generally held to be the view that the morally right action is the action that **produces the most good**. [It] is a form of consequentialism: the right action is understood entirely in terms of consequences produced. [...] On the utilitarian view one ought to **maximize the overall good** — that is, consider the good of others as well as one's own good. [...] Utilitarianism is also distinguished by **impartiality and agent-neutrality**. Everyone's happiness counts the same. When one maximizes the good, it is the **good impartially considered**. My good counts for no more than anyone else's good. Further, the reason I have to promote the overall good is the same reason anyone else has to so promote the good. It is not peculiar to me." (underlining and italics added, *Stanford Encyclopaedia of Philosophy*, 2014)*

Contrast the Utilitarian ethics with that of Deontological ethics, which focuses on *principles* and what is *right* for an agent to do rather than the *consequences* of what agents do [see the *Stanford Encyclopaedia article*]. The South African Constitution, for example, provides a framework of principles, rights, and duties that guides our actions as citizens. Now consider that agents could be human and non-human or post-human. Do we review our human rights principles and accord machines/robots the same rights as 'humans'? Do we accord machines/robots citizenry? Or do we need to first contend with whether it is ethical to (1) 'hack' humans and 're-wire' and 're-code' humans and (2) build machines/robots with self-agency and self-determining programming that can impact the lives of others. See, for example, the European Parliament '**Report with Recommendations to the Commission on Civil Law Rules on Robotics**' for considerations on these.

On agents, as HR practitioners should we review how we define who qualifies as employees or as part of the workforce? Will an augmented human or a machine be seen as an employee in the future world of work? How do we think about an *employee* value proposition or *employment* value proposition in the future world of work where they may be differently enhanced, augmented, or merged agents? Will it be ethical for augmentation or transhuman and post-human capabilities to become future operational and work requirements? Will it be ethical to ask employees to develop augmentation or transhuman and post-human capabilities?

Consider the present case of wearable technology if the above may seem far-fetched. It is a short step to transition from wearable technologies to body-imprinted, body-embedded, and implanted technologies. This is already being done today. Will it be ethical to make these wearable and implanted technologies part of the operational, work, or job requirements?



EMPLOYEE LIFE CYCLE

The changes in life expectancy and lifespans, and the variations thereof, will impact how we see and think about our talent and workforce strategies and the employee life cycle. That is, the life cycle from sourcing to terminations and the maintenance of 'alumni pools' (see the SABPP National HRM Standards, in particular the Talent Management Standard). This includes how we see capabilities and the development of these, ageing, retirement, and the form alumni pools can take. Do we need to think more broadly than 'human capital'? Will talent and the management thereof include augmentation and transhuman capabilities? Will retirement become obsolete with ageing being mitigated or interrupted (as predicted by transhumanism)? Will alumni pools not have age limits or be segmented by age? Will this unleash an individual's potential throughout their entire lifespan? Do we need to augment or rethink the framework of an employee life cycle? How will the mobility of workers and the flexibility and disaggregation¹ of work, including successive exits and returns to a corporate over an individual's extended career, reshape the employee life cycle and reconfigure the alumni pool and networks? Or are we marginalising hard-won worker rights and social security safety nets for the sake of corporate utility? Are we transferring responsibility for retirement planning completely to the individual and further commodifying workers and casualising work? These are paradoxes that the HR practitioner and his or her respective organisation needs to navigate and negotiate.

The HR practitioner will need to critically examine these questions in their particular context and the specific ways that the changes in lifespan, lives, and capabilities will impact their industry, corporate, and workforce. The below themes can provide signposts on the evolving context that could assist the HR practitioner. The HR practitioner could also consider their advocacy role at the policy level, which returns us to our normative ethics and normative theories of what is a good life and what is decent work. The section on 'just transition' below explores the notion of decent work and a human-centred agenda for the future of work.

SEGMENTED EMPLOYEE VALUE PROPOSITION

HR practitioners recognise that their workforce is not a homogenous, uniform group. There are segments within the workforce based on macro, socio-economic, and generational factors as well as internal factors based on strategic position, design of work and its allocation, criticality and scarcity of capabilities and skills, and the potential for innovation, growth, and execution. This means there cannot be a one-size-fits-all employee value proposition for these various segments, which suggests a segmented approach to designing the employment value proposition and brand (Chartered Institute of Personnel Development (CIPD), 2020).

The HR practitioner also needs to consider the changes in life expectancy and life span as it impacts (1) these various segments and (2) the workforce transitions that need to be planned for the green, digital, and crises-led transformations (see the **factsheet on workforce transitions**). These are transformations to address climate change, the fourth industrial revolution (4IR), the COVID pandemic and other low probability and high impact events, and the broader United Nations Sustainable Development Goals. The HR practitioner, in addition, needs to consider the impact on the employment relationship, in particular the psychological contract, and appropriate wellbeing and rewards strategies to address the different segments and their needs. What are the new challenges and requirements for wellbeing and rewards given the longevity dividend and divide? How do we view and address ageing and retirement as our lifespan, lives, and capabilities are evolving? Do we need to review how we define periods or phases of our lifespan and the retirement age? It is important to remember that how we delimit and demarcate periods or phases of our lifespan has evolved over time.

¹ See the **factsheet on the evolving definition of employees**.

JUST TRANSITION

The previous *factsheet on workforce transitions* explored how the debates on sustainability and inclusion have become crystallised in the concept of, and frameworks for, a just transition. It is seen as a “deliberate effort to plan for and invest in a transition to environmentally and socially sustainable jobs, sectors and economies” (ITUC, 2017, p3) to address climate change, 4IR and the digital transformation, and crises such as the COVID pandemic. Given the previous discussions, one may consider adding investing in human sustainability and quality of work and life as well to above definition of just transition (see the *factsheet on future employability and readiness*). In this regard the previous cited factsheet discusses human-centred agenda for the future of work by the International Labour Organisation’s Global Commission on the Future of Work. Together with the changes in life expectancy and lifespans, then, the HR practitioner needs to consider demographic trends in their context, ageing employees as well as their longevity and quality of work and life, the ageing and new industries, and the planned transitions required for the changes in work and the workplace as well as new industries.

PSYCHOLOGICAL CONTRACTS

With the changing lifespan and employment relationship, there are bound to be changes and shifts in the informal and unwritten beliefs, perceptions, expectations, and obligations between employer and employee. This is referred to as the psychological contract (CIPD, 2020). In fact, given the previous discussions, the categories of employer and employee may themselves change as well as the nature and perception of their relationship and their ideas, expectations, and beliefs on work, exit, and retirement. Relatedly, consider the discussion in the next section on portfolio careers and full-time employment (see also the *factsheet on future employability and readiness*).

What about the case of technology increasingly mediating and automating the relationship between employer and employee? Could the possibility of an AI-based system recruiting, selecting, contracting, and performance managing an individual agent lead to a psychological contract? Is the psychological contract obsolete? What form will the psychological contract take? If

these questions seem far-fetched, consider that some of the large corporates are already using autonomous AI-based recruitment, selection, video interviewing, and assessment of candidates. During this process what informal expectations and beliefs are the candidates developing? Are they developing these expectations and beliefs in relation to the system rather than their manager? Who is the ‘employer’ or employer representative in this instance for the candidate? Is the relationship shifting to a more transactional one? Does the candidate focus on and try to impress or game the automated system during recruitment? Does the candidate thereafter focus mainly on the metrics, dashboards, and analytics of the automated system after their appointment? Is the manager focusing mainly on the metrics, dashboards, and analytics of the automated system and using the system to ‘nudge’ or prompt shifts in the employee behaviour and output?

PORTFOLIO CAREERS

As corporates shift from full-time employment to a blended workforce with full-time, flexible, contingent, and freelance workers, some individuals are also moving from the idea of a single career trajectory and sequential, stepwise series of positions within a single corporate ladder. It is not just the lateral and/or vertical shifts across the corporate ladders of various organisations. They are deliberately and actively developing a portfolio of different careers and working relationships and, thereby, building blended income streams: “A portfolio career is a working style where you combine multiple streams of income—often creating a mix of full or part-time employment, freelancing or working as a consultant” (Castrillon, 2019). Thus, the individual may have a portfolio of work and identities that they manage. A simple case of this is that of full-time employees with ‘side hustles’. They are employees as well as entrepreneurs and freelance consultants. The availability of talent and gig work platforms enables flexible and remote working that can foster a portfolio career. Given this supposed ‘friction-less’ mobility and new form of career and flexibility of work, the HR practitioner will need to consider if the traditional employee life cycle will still be an adequate organising framework for thinking about, planning, and managing their talent in the future.

CONCLUSION

The future life expectancy and lifespan of humans at large (and post-humans for the transhumanists) certainly points to a longevity dividend, but also to the realities of longevity and lifespan inequalities akin to the digital divide. This longevity dividend and divide along with the exponential technological developments of 4IR and the future world of work have important implications for the talent and workforce strategies, especially the employee and employment life cycle and value proposition. The factsheet points out some of the normative ethical issues, the considerations on quality of work and life, the need to examine the psychological contract, and the possible shifts in how careers are being reshaped by corporates and individuals.

EARN 1 CPD POINT

This fact sheet was written by:

Dr Ajay Jivan:

SABPP Head of Research, Quality Assurance,
HR Audits and Financial Control;
Director at Vantage Lab; and registered Psychologist.



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