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## Employee Wellness: Preparation for the Fourth Industrial Revolution

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**Abstract:** *This paper draws the attention to the possible effects of the fourth industrial revolution on the positions of the EWP. The dawn of the fourth industrial revolution is inevitable, and is taking over the world thereby threatening to render many professions redundant, including the human science service industry. In as much as the era of artificial intelligence (AI) is promising better quality of life for many people around the world, research shows that there is already a significant change in human behaviour and interaction patterns. This challenges the wellness practitioners to be flexible enough to engage in lifelong learning for them to remain relevant service providers during this revolution disruption.*

**Keywords:** *Employee wellness; EWP; fourth industrial revolution; technology; Artificial Intelligence*

### 1. INTRODUCTION

It was established during the literature search from authentic academic search engines that limited research has been conducted on the possible effects of the fourth industrial revolution on employee wellness and Employee Assistance Programme (EAP), as such the Internet and LinkedIn social media platforms were mainly consulted in the process of preparing this article. This was seen as a first step towards awareness regarding the issue at hand for the professionals in the wellness field.

The fourth industrial revolution entails the integration of technology, humanity and biology (Schiuma, 2017; Pelaez, 2014). It means humanity is entering a disruptive era where lives are entwined with machines. According to Rouse (2017) and Schwab (2016), the fourth industrial revolution spells the onset of an inevitable sophisticated technology that alters the way humans have been living as trends such as the Internet of Things (IoT), robotics, virtual reality (VR) and artificial intelligence (AI) are changing the way people live and work.

It is evident that the fourth industrial revolution is about the technology essentially ruling the world because it is used for almost everything as it has taken over every part of people's daily lives. An attempt is made in this article to place the services of the wellness practitioners within the fourth industrial revolution as relevant and needed. The following aspects are addressed in the article: synopsis of technological revolution, the impact of the fourth industrial revolution, the power of Internet of Things (IoT) and its challenges, the survival of employee wellness practitioners (EWP) of the fourth industrial revolution.

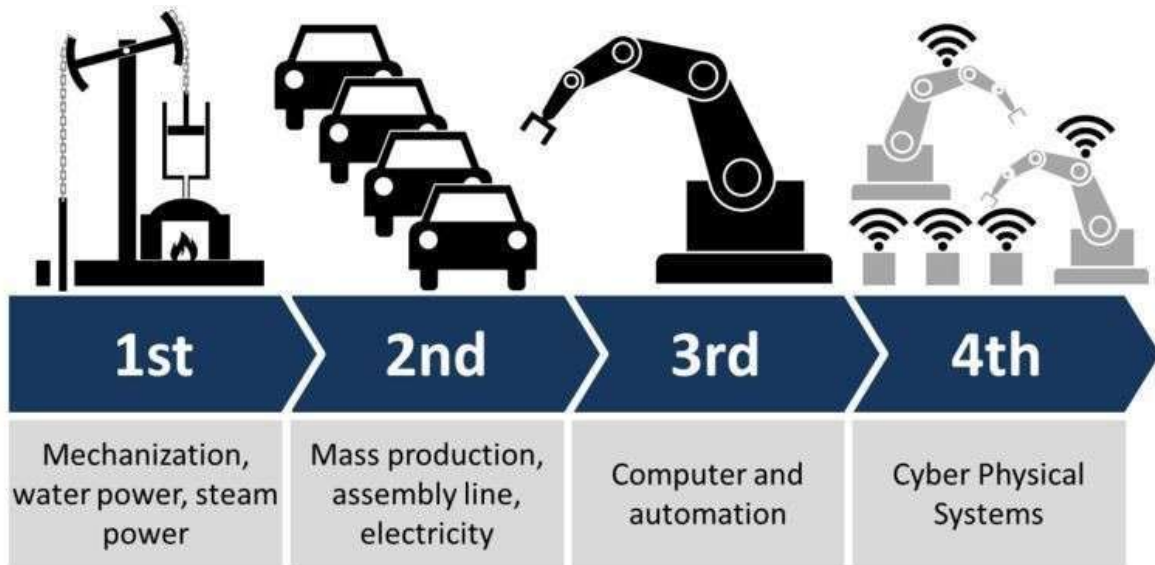
### 2. SYNOPSIS OF TECHNOLOGICAL REVOLUTION

Below is a synopsis of technological revolution in a chronological order as adapted from Schwab (2016):

- The first industrial revolution - water and steam power was used to mechanize production.
- The second industrial revolution - electric power was used to create mass production.
- The third industrial revolution is referred to as digital revolution because it involved the use of electronics and information technology (IT) to automate production.
- The fourth industrial revolution is an upgrade as it builds on the third industrial revolution. It is a combination of technologies between the physical, digital, and biological spheres. Velocity, scope, and systems impact give this revolution distinctive characteristic of rapid speed that has the ability to transform and disrupt the entire system, from production, management and governance of every industry (Pelaez, 2014).

The above information gives a clear indication of the possible effects of the industrial revolution on human labour, from the first industrial revolution to the fourth one. Of importance is to realise that the fourth industrial revolution has a direct influence on how employee wellness services will be rendered in future.

The above information is summed up in a diagram below



### 3. THE IMPACT OF THE FOURTH REVOLUTION

Below are a mixture of components that showcase the wins and challenges that suggest that the fourth revolution may be accompanied by unintended disruptions:-

#### Boosts Economy

According to Purdy and Daugherty(2017), AI has the potential to boost the economy by 38% by 2035, only if the organisations take bold and responsible steps to invest and apply AI technologies. The above-mentioned authors argued that the fourth industrial revolution would have a positive impact as the global income levels will rise and in turn, the quality of life for people will improve. The advances in biomedical sciences mean technology will change lives for better, with healthy living and longer life spans. For instance, scientists anticipate that the future lives will be entwined with machines. Simmons (2008) and Schwab (2016) gave an example of disabling conditions and diseases such as cancer that will be genetically engineered out of existence, artificial wombs to grow babies and driverless cars to name a few. One can say that the advent of the fourth industrial revolution promises technologies that will ultimately eliminate human errors thereby ensuring better lives for human beings.

#### Efficiency

Marr(2017) posits that robots are efficient, and can free the human beings from handling dull, dirty, dangerous and repetitive tasks while producing good quality work on mass-production. Machines are believed to be reliable and accurate as they do not need days off and are never late for work. Correspondingly, Morgan (2017) and Kanter and Veeramachaneni (2015) argue that machines can predict with accuracy and replicate human behaviour better than humans. Currently, algorithms are used for analytical and critical-reasoning tasks, therefore liberating workers to concentrate on more complex business issues that are aimed at creating solutions to previously insurmountable problems. For instance, algorithms were used to replicate in 2.85 seconds 360000 hours of legal contract work that normally took an entire team of lawyers over a year to complete. Furthermore, Free 'robot lawyer' has successfully challenged 160K parking tickets helping Londoners and New Yorkers with illegal parking fines (Gibbs, 2016).

On the whole, it seems that algorithms are replacing the analytical and critical-reasoning skills of white-collar workers the same way the previous revolution replaced the mechanical efforts of blue-collar workers.

#### Advances in automotive safety


Technological advances broaden the scope of surveillance and keep people safer and protected by reporting traffic and natural disasters, enabling law enforcement agencies to track suspected terrorists by analysing social networks, government records and other data. For example, the United Kingdom (UK) has 6 million CCTV cameras recording

activities all over the country, such technology watches people even when they do not want to be watched (Temperton, 2015; Mateescu, Brunton, Rosenblat, Patton, Gold & Boyd, 2015). It could be argued that as much as this technology is meant to keep people safer by providing accurate reporting on traffic and natural disasters, being watched all the time feels like invasion of privacy, leading to incessant feeling of nakedness as people do not know who is watching their every move and for what purposes.

### **Changes in Employment Industry**

World Economic Forum (WEF) (2017) predicts that up to 47% of jobs may be automated. This implies that some professions will fall between the cracks and many jobs will disappear. According to engineers, robots will do all the physical care and be people's social companions, for example, Sofia the human robot, (see below picture). It is reported that every negative human emotion will be in the DSM psychiatric diagnostic manual, enabling robots to treat and dispense medication, therefore replacing human beings. Lastly, clothes and accessories will tell people what to eat, when to eat, monitor their health, and remind them to take their medication.

### **4. SOPHIA - HUMAN LIKE ROBOT BY HANSON ROBOTICS IN HONG KONG**

<p>According to Hanson, Sophia is a genius machine that will surpass human intelligence. She is the sought-after speaker who can display more than 50 facial expressions, has met face-to-face with key decision makers in banking, insurance, auto manufacturing, property development, media and entertainment, and will evolve to solve world problems too complex for humans to solve themselves. Hanson believes that soon she will be integrated with three distinctive human traits, namely, creativity, empathy and compassion</p>	 <p>She is the world's first United Nations Development Program (UNDP) Innovation Champion and her official role is to promote sustainable development and safeguard human rights and equality, and the first social robot to receive country citizenship</p>
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*(Adapted from Robotics, 2017)*

It is clear from the above discussion that robots can easily replace people, as such reducing the need for human labour. This could have a negative effect on the livelihoods of families of employees who are rendered redundant by the use of robots. This calls for EWP to make a mark to ensure that they make their knowledge and skills irreplaceable by robots.

### **Threats to organised labour**

In addition, new technologies are said to be transforming traditional workplaces as the office-based model of 9-5 schedule in a fixed location is becoming obsolete. Moreover, the workplaces and production systems will be interconnected and people's homes will become work stations (Muller, 2018). As a result, the organised labour does

not support the fourth industrial revolution as it threatens job creation and livelihoods, especially of the developing countries that are mostly dependent on the conventional workplace. The organised labour deems it complex, blurring the line between home life and work life, and making organised labour irrelevant. Furthermore, organised labour argues that the interconnected home and work life gives the technology owners and employers more power to directly negotiate reward systems with workers thereby rendering unions redundant (Kaggwa, 2018; Rossi, 2017). It is clear that this revolution may have disruptive effects on the labour market as it threatens to displace and eject the unions out of the work space, something that is not likely to be accepted. Looking at the developing countries, there needs to be a staggered process to usher in the technologies so that the disruptions could be minimised.

### **Increase in social inequality**

According to The World Economic Forum Global Risks Report 2017, "The economic benefits of the fourth industrial revolution are becoming more concentrated among a small group. This increasing inequality can lead to political polarization, social fragmentation and lack of trust in institutions. To address these challenges, leaders in the public and private sectors need to have a deeper commitment to more inclusive development and equitable growth that lifts up all people." Equally, Schwab (2016) posits that most people have not benefited from previous industrial revolutions as only small and powerful groups benefited, and became wealthy from the 'winner-takes it all' economy that they created at the expense of the poor and the middle class, thereby creating democratic malaise and dereliction. This state of affairs challenges governments of different countries to engage in intensive thinking before they decide to implement the technologies. In trying to mitigate the broad gap of inequality in societies, those who did not benefit from the previous revolutions have to be assisted to move closer to those who previously benefitted, in an effort to narrow the gap between the two groups. In this way they could learn some skills in using technologies, leading to them becoming economically viable so move closer to narrowing the gap.

Having seen the impact of the fourth industrial revolution, it becomes important to further explore the power of the IOT and its challenges.

## **5. THE POWER OF IOT AND ITS CHALLENGES**

The IOT is the powerful communication tool that has created a true global village, bringing billions of people into the global economy and provides instantaneous education and access to information across the planet. The IOT has erased borders and brought diverse people together. Platforms such as Facebook, Twitter, WhatsApp, Instagram, and many other blogs have given everyone a voice to instantly spread information especially about dramatic events, as well as being on top of world events (Trailhead. sales force, 2018; Nolin, 2015; Mateescu et al, 2015). Cabral (2011) and Hughes (2018) sum up the above by saying that the Internet has indescribable power to influence people's lives as it is usually the first and the last activity of their daily life. This points to the notion that the Internet rules the world as it enables people to instantly connect with each other despite distance. Following are the challenges that accompany the use of internet through its platforms:

### **Social media and digital news challenges**

Although social media are effective communication tools, they have their own pitfalls that we need to become aware of and think about how to avoid them. Some of the social media and digital news challenges are impaired social interactions, social isolation, as well as mental health problems. The latter include anxiety, depression and stress, keeping societies under undue surveillance that predisposes people to physical and cyber attacks, as well as intensifying social divide as it can be used to spread propaganda, carry out terror acts and recruit members (Griffiths, 2016; Griffiths & Kuss, 2017). Above all, Hughes (2018) and Devlin (2018) maintain that social media have the darker side which is fake world of showing off and only highlighting the best moments in one's life such as attending social events and reaching a milestone.

It is evident that social media have savaged family time and social relations as most people have a deep relationship with technologies. They mostly choose to engage with people who are far away instead of holding conversations and engaging with those in the same physical space with them.



*(Adapted from Weissmann, 2015 -Do you control your smart phone or does it control you?)*

Social media are ripping society apart– family and friends hanging out together, but each of them is caught up in their digital devices, as illustrated in the picture above.

Many authors such as O'Keeffe and Clarke-Pearson (2011); Luxton, June, Fairall and (2012); John, Stewart, Wood, Lloyd and Hawton (2018) concur that the Internet and social media put children and young people under pressure, and at the risks of suicide-related behaviour, self harm and cyberbullying. They are also exposed to inappropriate content and many things that they may not understand such as pornography and cyber-bullying. For example, a bully can threaten to reveal the teenager's secrets or even spread lies online which can have devastating effects, ranging from depression to suicide. For example, it was reported in February 2019, that a 13years old teenage girl from Pretoria committed suicide as she was being mocked after her picture was shared on the school's WhatsApp group. Consequently, she could not endure the pain and humiliation anymore and ultimately ended her life (Gous, 2019).

Similarly, Hughes (2018) and Nalin (2017) maintain that most of the teenagers have poor social skills that are critical for survival in life because they are glued to their phones as they do not want to miss on newsfeed, and they want to see how many likes, shares and followers one gets and this in turn isolate them. This according to Graham (2016) is 'fear of missing out' (FOMO), which refers to constant monitoring of social media.

Social media perpetuate anxiety among younger users who often compare themselves. Those who can not keep up and or fit in with their peers "perfect postings" oftentend to feel inadequate and left out thereby becoming self-critical and despair about their life (Hughes, 2018; Nalin, 2017; Graham, 2016). On the same vein, Server-Veloso (2017) echoes that parents like to use gadgets as a baby sitter thinking that they are exposing their children to the world of technology. Conversely, many studies have shown that this has many negative effects such as speech delay, learning problems, mental disorders (Anxiety, Hyperactivity Disorder (ADHD), and childhood depression.

On the whole, there is significant evidence that suggests that human behaviour and interaction have changed drastically because of technology. With the advent of social media came high numbers of people with negative emotional state, depression anxiety and stress. One can conclude by saying that parents need to be mindful of the gadgets they are exposing their children to as well as protect their teenagers by regulating their social media usage through limiting the amount of time spend online.

### **Cybercrime**

Cybercrime has been found to be the other challenge that comes with the use of the Internet. In as much as technology has been used to improve the economy's efficiency, organised crime syndicates are now using the

sophisticated new technologies to fake documents and personal identity documents to infiltrate, defraud and hack organisations' systems as well as individuals' accounts. According to Griffiths (2016) in 2013, South Africa recorded the highest number of cybercrime victims in the world, with cost estimates of R5,8 billion, which is 0.14% of the country's gross domestic product (GDP). This ascertainment is true as almost every South African citizen has experienced unauthorised debit orders of R50 to R100 from their accounts that our banks claim they are unable to stop.

### **Privacy and anonymity**

According to Ainslie (2016), once one's information is available online it is difficult to delete, which means one's footprint is scattered across the Internet. Hill (2018) concurs by quoting Narayanan, an Assistant Professor of Computer Science at Princeton, who argues that companies can put a real name to the data, which means you are not really anonymous but you have been assigned a pseudonym. He further argues that people value their ability to control what is known about them, and yet we are living in a world where tracking every individual's personal information is key to delivering more intelligent, personalised services. For example, online tracking works as follows: Facebook tracks what you do so that it knows which content and advertisements are most relevant to you; smartphones track your location, and you can share that information with apps that recommend places to eat or shop and retailers analyse your purchase history to recommend products and offer coupons to stimulate more sales. As a result, no one can claim any privacy of personal information when they use the Internet.

### **Distrust**

Countries are struggling to enforce cyber security regulations as it is complex and therefore, their agreements lack trust. Moreover, the misuse of personal data causes doubt on cybersecurity as companies use cookie syncing to share peoples's online information without them knowing, and they are also able to determine that different devices are owned by the same person (Hill, 2018; Griffiths, 2016). The distrust in the world of technology is exacerbated by what the Oxfam's report 2018 coined as the discrimination and exploitation of the poor by the richest 1% who took 82% of the wealth generated in 2017 while the poorest half of humanity languish in abject poverty. Inequality is staggering as the activists and labour unions are silenced therefore leaving people around the world to lose their lands and livelihoods, they are forced to work for meagre wages in more exploitative and abusive jobs, like the women in US factory lines who have to wear nappies because they are not allowed to have toilet breaks (Oxfam America International, 2018; Oxfam America, 2016).

All the challenges alluded to above could have an impact on the employee's work life and therefore efforts mentioned below are made to illustrate the need for wellness services and how the wellness practitioners could make themselves indispensable during the fourth industrial revolution.

## **6. HOW THE EMPLOYEE WELLNESS PRACTITIONER CAN SURVIVE THE FOURTH INDUSTRIAL REVOLUTION**

The Employee Wellness Practitioners (EWP) cannot be spared from this harsh reality of the fourth industrial revolution, unless they become innovative in how they operate and make themselves indispensable. For them to survive the fourth industrial revolution they need to emulate the bamboo grass - it is flexible and bends with the wind and never breaks. It is capable of adapting to any circumstances and changes. They should seek ways to enhance the AI within their sphere of operation while making their role irreplaceable. The following elements are hoped to make a difference in ensuring that the EWP's are not disrupted nor displaced by the fourth industrial revolution:

### **Appropriate skill base**

EWP should have the correct skills base to ensure that when some of their functions become obsolete, they are ready to tackle new problems that may have arisen out of the fourth industrial revolution phenomenon. More importantly, EWP should have a positive attitude that will ensure that they thrive in the world of machines, whatever may come. The EWP possess an in-depth knowledge of theories that can be used to fight discrimination, exploitation and inequalities as well as instant gratification that seems to be some to the repercussions of the fourth

industrial revolution. As a result, they need to use this knowledge and skills to illustrate that machines cannot replace them.

### **Savviness is key to their survival**

Above all, savviness is key to these professionals' survival. EWP need not compete with robots but should position themselves as strategic partners who recognise the gap in the market and adapt their services to meet the needs of both the employer and the employees. For instance, identifying things machines cannot do well and work with them for the benefit of the employer and the employees; hence maximise production in the workplace.

Against this background, EWP should not only strive for services that are robust, proactive, promotive, and dynamic in nature, but should stay true to their duty-bound responsibility of being culturally sensitive and supportive. As long as they stay in touch with their professional values and stay innovative, they will continue to exist because employees will continue to experience emotional distress, suffer from structural barriers and inequalities.

For the fact that machines will replace many employees, the EWP employees will not be having many employees to take care of. As a result, they will have enough time to pay attention to the emotional aspects that hamper the wellbeing of their clients. In this manner, they could be able to increase the production to a point where they are seen as important strategic partners in all operations.

Bashir and Bhat (2017) posit that there is a correlation between excessive social media usage and mental health problems. Therefore, the EWP can empower employees to make informed decisions, learn how to postpone and deal with instant gratification that is heightened by social media likes, engage in activities that promote social cohesion to strengthen social relations, bind people together, and advocate for work life balance. This could be achieved through the use of unique knowledge and skills that the EWP possess, that cannot be replaced by machines.

### **Mobilization and Advocacy**

EWP can mobilise private agencies and advocacy groups to pressurise governments to establish employee-friendly legislation. The latter will force the technology owners and employers to ensure that the opportunities they bring are well distributed across the communities. By doing this, they would be addressing discrimination and inequality issues to ensure better quality of life for the poor and the middle class who missed the previous revolutions. Lastly, there has to be organised movement that will raise awareness on the effects of IoT, especially around mental health, blurred homework lines that will emanate from this revolution.

### **Embrace new technology to survive**

EWP can use blogging for group therapy. This is an online group work/forum that provides people with similar challenges to share their experiences and support each other. For instance, a platform could be created for young widows and widowers to deal with the sudden loss of a spouse.

In addition, they can use simulation method such as virtual and augmented reality to replace imagination and role playing as it offers the client the opportunity to face the feared context at own pace while feeling safe in the virtual situation as he/she is supported by the therapist.

Lastly, protection and securing of records is an important element of record keeping. The digital 'vault' in the cloud can be used to securely store clients' records, emails, certificates, voice files and other data, thereby protecting clients' information from theft and natural disasters.

## **7. CONCLUSION**

The evidence from this article shows that the fourth industrial revolution is the reality that EWP have to confront if they are to continue being relevant. Being playable, engaging in lifelong learning and remaining true to their professional ethics will ensure that they survive more so that socio-economic inequality and discrimination are highlighted as some of the challenges of this revolution. As the custodian of social justice, they need to be aware of the unavoidable challenges emanating from the demands of the fourth industrial revolution and be innovative in sharpening their knowledge and skills to provide the needed support for the work force. In this way, they will remain irreplaceable by rendering relevant services.

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