Chapter 17
Reskilling and Upskilling to Develop Global Relevance in the Fourth Industrial Revolution

Kehinde Oladapo Oladele
University of KwaZulu-Natal, South Africa

Eniola Olutunde Lisoyi
Richfield Graduate Institute of Technology, South Africa

Isaac Idowu Abe
Cape Peninsula University of Technology, South Africa

ABSTRACT

The chapter identifies factors that influence readiness, acceptance and skill acquisition that are relevant in the Fourth Industrial Revolution (4IR) and to expose the reader to the advantages the 4IR offers. To harness and embrace changes cum strategies that can be adopted to equip individuals across generations with the core skills needed in the workplace. A systematic literature review approach will be adopted to expand on the variables of the activated classroom model, which can create a teaching and learning environment that empower learners with needed creativity and an innovative mindset to better position them for the fourth industrial revolution. This chapter will highlight issues in conventional teaching and learning methods, how they limit creativity in learners and how the activated classroom model solves these issues. It is imperative to focus on teaching and learning methods, as the world is a constantly changing global village and will require individuals to learn, unlearn and relearn concepts to acquire new skills to stay relevant.

INTRODUCTION

Currently, a massive change is ongoing in the world and the 4IR has also highly characterized such changes. The way we live, associate, learn and work has assumed a drastic transformation. According to students of history and researchers of several disciplines (Troxler, 2013), one can contend that society has effectively experienced a positive impact of the 1st, 2nd and 3rd Industrial revolution and as such should not be worried about how the 4IR will impact business processes and human interactions in general. However, the 4IR is unique in comparison to the previous industrial revolutions. Undoubtedly, the magnitude and speed of anticipated disruption concerning enterprises, geographies, labour markets, information sharing, knowledge dissemination and technological growth is exceptional and exponential (Pedron, 2018).

The global labour market is more different today than it was twenty years ago. It has been reformed by dramatic events like the Great Recession but also by a quieter ongoing evolution in the mix and location of jobs. In the decade ahead, the next wave of technology may accelerate the pace of change. Millions of jobs could be phased out even as new ones are created. Generally, the daily nature of work could change for nearly everyone as intelligent machines become fixtures in the global workplace (McKinsey report, 2019). The implication of the above is that less-educated workers are most likely to be displaced, while the youngest and oldest workers could face unique challenges. However, those with the least education will be at greater risk (International Labour Organization Report, 2019).

Reskilling is the labour process of learning new skills to approach the job differently from the former mindset. The concept of reskilling is the entire process of a technical and technological approach to learning and skilfulness. Leaders in the workforce are faced with the challenges of restructuring, redesigning and redefining roles, tasks, and responsibility of employees in the workplace (Chong & Gopinathan, 2019).

Globally, the commitment to labour upskilling is on the rise due to the adoption of the digital technological approach. Upskilling is the provision of more advance education or training to employees. Various terminologies have been in use to represent upskilling, these include upside-down cake, upsides, upsilon, upsilon particle, upsize, up-spin, upspring, upstage, upstairs, upstanding among others (Beaumont, Hinton & Sefronoff, 2018).

BACKGROUND

The nature of numerous occupations is changing, and others will cease to exist because of the 4IR, the workforce as known presently will be replaced by humanoids and artificial intelligence. New jobs and areas of specialization which do not exist will spring forth and be relevant considering the major changes that are underway; a new set of skill is required. About one-third of skills (35%) that are important in today's workforce; in five years would have changed (Gray, 2016). We currently live in an age of high skills instability across all occupations types and industrial sector. The growth in robotics, humanoids, machine learning, genomics artificial intelligence, 3D printing and biotechnology just to name a few are disrupting the current business processes, decreasing the shelf-life of employees' skills.

One major fear of the populace is the view that the 4IR will usher in the dawn of lack of employment. However, Allen (2015) claims that technology has created more jobs than it destroyed. Machines will only take on more repetitive and laborious tasks and seem no closer to eliminating the need for human labour from data gathered in the last 150 years in which the 2nd and the 3rd industrial revolution

11 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/reskilling-and-upskilling-to-develop-global-relevance-in-the-fourth-industrial-revolution/265620

Related Content

Feeling Closer Despite the Distance: How to Cultivate Togetherness Within Digital Spaces
Julia Ayache, Nadja Heym, Alexander Sumich, Darren Rhodes, Andy M. Connorand Stefan Marks (2021).
Handbook of Research on Remote Work and Worker Well-Being in the Post-COVID-19 Era (pp. 243-263).
www.irma-international.org/chapter/feeling-closer-despite-the-distance/275127

Proposals for Postgraduate Students to Reinforce Information Security Management Inside ITIL®
Elena Ruiz Larrocha, Jesús M. Minguet, Gabriel Díaz, Manuel Castro, Alfonso Vara, Sergio Martínand Elio San Cristobal (2011). *International Journal of Human Capital and Information Technology Professionals (pp. 16-25).*
www.irma-international.org/article/proposals-postgraduate-students-reinforce-information/53827

Work-Based Learning and Innovation: A Study of International Commerce Degree Students
Marilia Angove (2019). *Innovation and Social Capital in Organizational Ecosystems (pp. 173-193).*
www.irma-international.org/chapter/work-based-learning-and-innovation/223654

Global Examples of Approaches to Teacher Education in the 21st Century: Creating Theory-Practice Nexus through Collaboration
Catherine McLoughlinand Prathiba Nagabhushan (2016). *Professional Development and Workplace Learning: Concepts, Methodologies, Tools, and Applications (pp. 1898-1913).*
www.irma-international.org/chapter/global-examples-of-approaches-to-teacher-education-in-the-21st-century/137285

Demystifying the Role of Emotions in Decision-Making Sciences: A New HRD Indicator Dimension
Nitu Ghosh (2021). *International Journal of Human Capital and Information Technology Professionals (pp. 46-64).*
www.irma-international.org/article/demystifying-the-role-of-emotions-in-decision-making-sciences/288376