

## Muslim Psychologists in Facing Challenges of the 4.0 Industrial Revolution Ahli Psikologis Islam dalam Mendepani Revolusi Industri Ke-4

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### ABSTRACT

*The 4.0 industrial revolution (4IR) is one of the biggest challenges faced by every individual, especially psychologists of this century. In this article, the authors will examine the preparation for challenges psychologists face in helping individuals deal with the psycho-social impact of the 4.0 industrial revolution. 4IR comprises of ten pillars: automation robots, simulations, system integration, multi-purpose internet, cyber security, public computing, additional material creation, reinforced reality, large data analysis, and system integration. This conceptual paper covers articles and books from year 1998 to 2020. This article aims to help psychologists become more knowledgeable about how their disciplinary expertise can assist in discussions, research, and policy initiatives relating to 4.0 Industrial Revolution. Therefore, the objective of this paper is to outline the challenges faced by the Muslim psychologists in the era of 4.0 Industrial Revolution and how to deal with the challenges diligently. Psychologists are responsible for designing and implementing interventions to deal with the psycho-social impact of the 4.0 Industrial Revolution. Psychologists' involvement is needed to increase psychological support to individuals, in particular, and to society as a whole. Hence, the mental health and mental strength of psychologists are important in preparation for the 4IR challenge.*

*Keywords: Psychologists; 4.0 industrial revolution; preparation; challenges; mental health*

### ABSTRAK

*Revolusi Industri 4.0 merupakan salah satu cabaran terbesar yang dihadapi oleh setiap individu, terutamanya ahli psikologi abad ini. Dalam artikel ini, penulis akan mengupas tentang cabaran dan persediaan yang perlu dilakukan oleh ahli psikologi dalam membantu individu menangani kesan psikososial revolusi Industri. Revolusi industri 4.0 mengandungi sepuluh tonggak iaitu robot automasi, simulasi, integrasi sistem, internet pelbagai guna keselamatan siber, pengkomputeran awam, pembuatan bahan tambahan, realiti diperkukuhkan, analisis data besar, dan integrasi sistem. Kertas konsep ini terdiri daripada artikel dan buku dari tahun 1998 hingga 2021. Artikel ini bertujuan untuk membantu ahli psikologi menjadi lebih berpengetahuan mengenai bagaimana kepakaran disiplin mereka dapat membantu dalam perbincangan, penyelidikan, dan inisiatif dasar yang berkaitan dengan Revolusi Industri. Objektif penulisan ini adalah untuk menyenaraikan cabaran-cabaran yang dihadapi oleh ahli psikologi Muslim dalam era Revolusi Industri 4.0 dan bagaimana mereka boleh menanganinya dengan bijaksana. Ahli psikologi bertanggungjawab merekabentuk dan melaksanakan intervensi untuk meningkatkan kesan psikososial Revolusi Industri 4.0. Penglibatan psikologi diperlukan dalam meningkatkan sumbangan psikologi kepada individu, khususnya dan masyarakat secara keseluruhan. Oleh itu, kesihatan mental dan kekuatan mental ahli psikologi adalah penting sebagai persediaan untuk menghadapi cabaran 4IR.*

*Kata kunci: Ahli Psikologi; Revolusi Industri 4.0; persediaan dan cabaran; kesihatan mental*

### INTRODUCTION

The emergence of a new wave of technology known as 'The Fourth Industrial Revolution' or Industry 4.0 also known as 'smart manufacturing' or 'industrial internet' (Rahman, Kadir, Mohammad & Moin 2017) is warmly felt throughout the world including

Malaysia. Malaysia as well needs to ensure the succession of the Digital Era. The terms of 4.0 industrial revolution have been introduced since 2011 where it has been linked to business, political and academic developments (Hermann, Pentek & Otto 2016). Industrial revolution refers to the changing economic and social systems of technology

in industry. It is characterized by key technologies, such as genetics, artificial intelligence, cloud computing, nanotechnology, biotechnology, and 3D printing (Schwab 2016).

Rahman et.al (2017) added that the value of technology is highly emphasized in the 4.0 industrial revolution. Brynjolfsson and McAfee (2014) argued that current technology is no longer intended to replace the physical workforce and support humans in doing their jobs, but rather to replace cognitive and human labor at all. Regardless of the suitability of current employee skills, the Fourth Industrial Revolution will pose the challenge needed by employees to have better skills throughout their working life (World Economic Forum 2017). Among the psychosocial impact of 4IR are rise in anxiety level, job dissatisfaction and job uncertain due to increase usage of technologies (Rhee & Jin 2021). Thus, psychologists should be prepared to face the challenges of the 4.0 industrial revolution by helping individuals deal with the psychosocial impact of the 4.0 industrial revolution.

Psychologists need to be prepared physically, emotionally, spiritually, intellectually and socially prepared for the 4.0 industrial revolution. Psychologists are responsible for designing and implementing interventions to improve the psychosocial impact of the Industrial Revolution 4.0. Hence, the mental health and mental strength of the psychologist are important in preparation for the 4IR challenge. The question is whether psychologist ready to face this challenge?

This article aims to equip Muslim psychologists become more knowledgeable about psychology, 4IR and Islamic teachings in facing the challenges. By understanding the nature of the study of psychology in Malaysia, and inferring it to Muslim as a whole, this paper will discuss the role of Muslim psychologists in facing the challenges of 4IR.

## PSYCHOLOGY IN MALAYSIA

This section discusses the context of psychology in Malaysia, the emergence of Islamic psychology and an overview of the 4th industrial revolution that important for Muslim psychologists in equipping themselves in all aspects of life.

Generally, psychology is defined as a scientific study of behavior and mental processes. Among the universities offer psychology courses in Malaysia are Universiti Malaya, Universiti Kebangsaan Malaysia, International Islamic University Malaysia,

Universiti Malaysia Sabah, Universiti Teknologi Malaysia, UCSI University, HELP University College, International Medical University, Segi University College. Whereas, diploma in Psychology is also offered at private colleges at Darul Hikmah College, Kajang Selangor, College of Islamic Science and Technology, Terengganu, Kamunting College, Taiping Perak, Jaipuri College, Kelantan.

The history of psychological services in Malaysia is related to the history of counselling (Halim 1984), and psychiatry (Pope, Musa, Singaravelu, Bringaze & Russell 2002). In Malaysia, the psychological problems faced by community and individuals may be different from those of in Western countries. However, mental health has been undeniably effected due to the pandemic Covid throughout the whole world (Ab Rahman, Kashim, Mohd Noor, Che Zarrina, Ahmad Zaki, Abdul Rahim, Ashaari, Sayyid Buhar & Norhayati 2020). Psychologists in Malaysia act as agents of social change instead of analyzing and curing the unstable personality problem a person faces. It is vital to have a more holistic theoretical perspective on western secular psychology for fulfilling more on personality and spiritual aspects. Reviews on various theories shows that every Western theory has some truth and is supported by Islam but has limitation in giving a full picture of human motivation. Psychology should take into consideration all these theories and incorporate Islamic perspectives in order to give an alternative, more comprehensive look (Alias & Samsudin 2005). Philosophers in eastern countries, for instance, define holistic person as encompassing the—physical, mental, emotional, dan spiritual components( Dahlan 1991; Storz 1999; Tu 1979, 1987).

## THE EMERGENCE OF ISLAMIC PSYCHOLOGY

The establishment of the International Islamic University Malaysia (IIUM) in 1983 and the faculty of Human Sciences in 1990 initiated the resurgence of Islamic Psychology in the Modern Era (Haque & Masuan 2002). International scholars join universities and collaborated with social sciences department to help reduce the gap between Islam and modern psychology (Haque, Khan, Keshavarzi & Rothman 2016).

The role of religion and spirituality has been significant in recent times where professionals, researchers and academics have contributed to the literature indicating further progress (Richards

et al 2015). Among the contemporary Muslim psychologists around the world who have contributed to the literature related to Islamic psychology were Badri (1999, 2000, 2001), Haque (2004, 2016), Utz (2011), Abu Raiya (2014), Khaidzir, Jawiah, Fariza & Hanina (2009), Shukran (2012), Khairul Anwar & Hasnan (2014) Sham (2015, 2016) and Muhammad al-Mahdi Jenkins & Abdul Aziz Azimullah (2016), Khaidzir et al (2019), Syaidatun et al (2019) and Amber Haque (2021).

The emergence of Islamic psychology signifies that more Muslims are enlightened by the teachings of Islam and that the psychology that was taught by the Prophet Muhammad (PBUH) more than 1500 years ago are actually fitable and suitable for all Muslims despite the changing time. Muhammad and Abdul Aziz (2016) strongly believed that psychology is one of the fields of human sciences that could be "Islamized" by integrating input from a secular and Islamic perspectives. This can be done by adopting a framework for examining the nature of the human self, in its existing potentials and its observable traits, based on the teachings of the Quran and the Prophetic traditions. There are various methods and approaches to study human, among them are observation, experiment, contemplation and others. Islam proposed men to learn about themselves through the *naqli* (revelations-quran and sunnah) and *aqli* (mind-ponder, contemplate). It also reviews the rich heritage and understanding of Muslim scholars who excel in worldly and spiritual knowledge.

Betteridge (2012) views Islamic psychology as relating to all aspects of Islamic teaching from the Holy Qur'an, Hadith and Sunnah which directly mention or relate to aspects of the human psyche, with particular emphasis on maintaining a healthy mental state or causes and treatments of an unhealthy mental state. Alizi (2017) defines Islamic psychology as "The scientific study of manifestation of the soul in the form of behaviour and mental process. While Abdul Aziz (2015) views Islamic psychology as the psychology of Self (*al-Nafs*) and specifically, it is the psychology of spirituality Islamic psychology stresses the idea of spiritual psychology as being the foundation to the development of human personality. In Islamic psychology, the Self conforms to its *fitrah* and it is consistent with the teachings of the Qur'an) and Hadith (s). We may conclude that Muslim psychologists are those who master both the Islamic revealed knowledge and the substantial field of psychology in which they are able to share the knowledge for the well-being of mankind.

This is where Islamic psychology aims to equip the Muslim psychologists to face the challenges of the future. In short, Muslim Psychologists should be equip with physical preparation, emotional preparation, spiritual preparation, mental preparation, knowledge preparation, education preparation, social preparation and ICT skill preparation.

#### FOURTH INDUSTRIAL REVOLUTION (4IR)

Professor Klaus Schwab who is founder and chief executive of the World Economic Forum was the first person to introduce The Forth Industrial Revolution (4IR). The 4IR introduced to uncover the current technological revolution we are undergoing and to explore how the world is witnessing a transformation that is inevitably affecting the way we live, interact and work. Some examples of areas in which these breakthroughs have occurred includes artificial intelligence (AI) robotics such as machine learning, nanotechnology, biotechnology, quantum computing, blockchain, the Internet of Things, 3D-printing and more. The 4IR idea is incredible and feels like nothing like what human beings have ever experienced (Effoduh 2016).

In Malaysia, 4IR uses various technologies. 4IR has a more realistic vision covering IoT, Industrial Internet, Smart Manufacturing and Cloud based Manufacturing (Vaidyaa, Ambadb, & Bhoslec 2018). In this development, IoT is seen as the most suitable platform to leverage various fields of technology and to provide added value to various industries in the country, not only to companies, industries and local communities but also to international network systems.

On the other hands, 4IR has the potential for creating cleaner, more inclusive and safer economy, as well as improve the management and governance of the global environment as an important human rights goal. The challenges from the global account of 4IR projections are relevant not only to anthropology or innovative technology discourse, but also for legal academics, and 4IR provides challenges and opportunities for regulation, governance, and education. 4IR also has important implications for the conceptualization and enjoyment of human rights. However there is no one appropriate measure for all countries when formulating 4IR strategy and policy making as each country must carefully look at the uniqueness of its role in each country's global market (Santiago 2018).

Schwab (2016) asserts that the world has experienced four industrial revolutions the first to use steam engines for mechanical production, the second to use electricity and the concept of labor division to create mass production, the third to develop in the middle of the last century, introduced information technology; and automated production processes; and lastly nowadays we have reached the fourth rung. At this stage, 4IR, we are witnessing a digital transformation that pervasively impacts every work of life across the globe. Schwab explains that 4IR drives as megatrends in three manifestations encompassing physical, digital, and biological. This manifestation rise to practical development with tipping points that provides context for the expected changes in global society. Schwab engages with his theory of the 4IR and the impact of the 4IR on the global economy, trade, international security, identity, morality, ethics and human relations. 4IR can also be extended to specific areas such as rural areas where the green economic sector is developed with the manufacture of green technology. Yet one of the main problems is determining the role between urban and rural areas (Sihlongonyane, Ndabeni & Ntuli, 2020). The industrial revolutions have resulted, in the increased migration of people. Mostly the movement of people from the rural to the urban area due to the demand for a large workforce for the growing industries. (Sihlongonyane et al. 2020). Therefore, this paper will look into the psychosocial impact of 4IR, the challenges faced by the Muslim psychologists and tentative preparation in dealing with this important era of mankind.

#### PSYCHOSOCIAL IMPACT OF 4IR

Among the psychosocial impact of 4IR are the economic inequity and unemployment; loss of social ties; increased mental illness; and urbanization.

#### ECONOMIC INEQUALITY AND UNEMPLOYMENT

The fourth industrial revolution brought fundamental changes in the work landscape (e.g., Brynjolfsson & McAfee 2014; De Stefano 2016; Frey & Osborne 2013). Changes in the nature of work indicate that increasing numbers of people are or will be without permanent employment by a single employer and work in a series of more independent tasks and projects (Brynjolfsson & McAfee 2014; De Stefano 2016). The dropping number of available jobs and lower wages, leaving individuals vulnerable to stress.

This poses important challenge in how work can meet basic human needs in terms of security, survival, social connection, and self-determination. Work is an essential aspect of life and is critical for mental health because it can fulfill the needs of human beings who are competent, relevant and autonomous. 4IR is able to form the best human resource competitiveness in dealing with the new era in business (Pratama 2019). Based on the analysis of Mckinsey Global Institute, 4IR has a very large and wide impact, especially on the job opportunities sector, where robots and machines will create many opportunities in the world.

However, 4IR has affected job losses, basic income sources, project type jobs, robot tax payments, digital gaps, security breaches and privacy in big-data technology. This has caused problems from an economic point of view such as civil ethics and human commercialization, so that people face risks such as cyber-syndrome, denial of real life, and so on (Kim & Heo 2018). The shrinking number of jobs available is not the only effect. The economic impact of the fourth industrial revolution is expected to result in increased economic inequality. The rich become richer, the poor is left behind. Psychologists can assist people cope with the constant change in their current jobs and continue to work through continuing education and learning.

#### LOSS OF SOCIAL TIES

Digitalization of modern technology forms a new level of lifestyle. This can be seen through the individual's dependence on digital devices, the loss of human touch, and interaction with community is also fading. Psychologist should make successive changes with digital transformation that stepping up skills to stay competitive. However, there is an impact of the Revolution Industri 4.0 which is inception of soulless human being who lose their humanitarian value (Dzulkifli 2016). 4IR technology has also affects human behavior, social, policy, and governance which results in major changes in the way of life and society norms (Wang & Siau 2019) so that direct human involvement is declining. However, the development of human governance in 4IR is still important because human beings are still relevant and are the technology managers (Kim & Heo 2018; Wang & Siau 2019; Pratama 2019).

Internet technology is one of the facilities that gives exposure to a person to know and connect with each other freely and openly through Facebook,

Twitter and Instagram. The fourth industrial revolution brought many changes to society where people and organisations used new ways to communicate, collaborate, share, access information and create content. Individual tend to spend more time online rather than meeting other people face to face. This may cause human relationships to diminish. The fabric of society changes from “we-ness” to “me-centered”. “Me-centered” society refers to the process of individulization and emergence of new forms of belonging and community. Technological advances can have a negative impact on our social skills and our ability to empathize. This may deprive us of time to pause, reflect and shallow our cognitive capabilities.

#### INCREASED MENTAL ILLNESS

In parallel with digitalization technology, the pace of the work is changing drastically. Individuals are required to accomplish work quickly, which can lead increased emotional instability. Job loss among workers emulates the feelings of worry or anger, as well as higher risk of mental disorders such as depression and substance abuse. As a result, the demand for psychological services is increasing as people seek professional help to solve their problems. Unlimited use of technology also affects children and adolescents in terms of physical and muscle development, interpersonal skills, as well as deteriorating academic performance (Nahar, Sangi, Baniear Salvam, Rosli & Abdullah 2018). Thus, the family is an important institution in instilling positive values to form a good young generation in character and mental development (Pratama 2019).

#### URBANIZATION

The Industrial Revolution also accelerated the growth of the urban population. One of the more important consequences of urbanization is the rapid increase in crime. Mass mobilization is no longer the primary prerequisite. Non-state actors can combine existing technologies and tactics to impose costs that previously required the concentrations of nation-state resource (Tallman 2019). This is the result of three factors that dominate the urban landscape. The first two are poverty and unemployment. There is no job security or social security for factory workers. If a person is injured at work or fired, he or she does not have the opportunity to make up for lost income.

Congestion is a third important source of crime. Industry attracts thousands of people to urban areas

in search of employment. Cities such as Kuala Lumpur are not at all ready for the influx of workers. This congestion triggers social dysfunction resulting in a rapid increase in crime against property and people. The Movement Control Order due to the pandemic Covid also contributed to the rising number of crimes and breach of rules.

### CHALLENGES FACED BY MUSLIM PSYCHOLOGISTS

#### INTEGRATION OF WESTERN AND ISLAMIC THEORIES OF PSYCHOLOGY

Almost all theories and data related to contemporary psychology come from Western populations. Triandis (1980) who received an award for his outstanding contributions to the advancement of international psychology, noted that almost all contemporary psychological theories and data came from Europe, North America, Australia, and other Westerners; yet about 70 percent of the world’s population lives in a non-Western culture.

Muslim psychologists should be aware that when working with clients, the theory should be based on Islamic perspective. Several attempts has been made to explain the concept of psychology and explain how the Qur’an present some phenomena by Utz (2011), as well as Keshavarzi and Haque (2013) addressed the Islamic theoretical models on psychopathology. These attempts needs to be expanded. Muslim psychologists need to be able to equip themselves with the Islamic theories about psychology.

#### LACK OF COMPETENCE OF MUSLIM PSYCHOLOGISTS

Among the main challenges faced by Muslim psychologists is our reliance on Western intervention and assessment tool. Thus, Muslim psychologists need to be competent in their field. Psychological competence refers to “the extent to which a therapist has the knowledge and skills necessary to deliver treatment to the standard needed to achieve the desired effects” (Fairburn & Cooper,2011). Competencies composed of the knowledge, skills, and attitudes, which, are necessary for professional practice. Competence have been included in the 2002 revision of the American Psychological Association (APA) “Ethical Principles of Psychologists and Code of Conduct” (Ethics Code; APA 2002).

These competencies could be increased by making preparations in facing the 4IR challenges. The preparation will be discussed in next section.

#### PREPARATION OF MUSLIM PSYCHOLOGISTS

Modern landscape lifestyle changes contribute to the increasing of mental health problems such as depression, antisocial and others. In other words, failure to cope with the industrial revolution challenges affects a person's level of psychological health. Hence, to overcome this situation, psychologists should be prepared physically, emotionally, spiritually, intellectually, and socially. Psychologists are often faced with a variety of clients who require them to prepare physically, mentally, emotionally and spiritually.

##### PHYSICAL PREPARATION

In the busyness of serving clients, psychologists need to wisely divide time for themselves. Psychologists need to engage in physical activities such as exercise, walking and so on. Physical activity has a strong relationship with psychological well-being and mental health of individual (Pasco, Jacka, Williams, Brennan, Leslie & Berk 2011). Many empirical studies show that walking, and physical activity can be an effective way to enhance positive moods. For example, people with high levels of regular physical activity have been shown to have higher levels of positive emotions such as interest, joy, enthusiasm and alertness compared to people with moderate and low levels of physical activity (Kanning & Schlicht 2010). All of these positive effects are needed when dealing with emotionally disturbed clients.

Islam also emphasizes the importance of being physically healthy as stated in the following Hadith: Abu Huraira reported: The Messenger of Allah, peace and blessings be upon him, said, "The strong believer is more beloved by Allah than those who are weak in faith, but there is goodness in both of them. Strive for what is good for you seek help from Allah, and do not be frustrated" (Ṣaḥīḥ Muslim 2664).

Those who wish to prepare themselves physically will ask Allah SWT to manage his life with His help and always be devoted in His ways. When he is determined to do something, he met all the requirements and then put his trust in Allah SWT alone. High dependence on Allah SWT, will give a good results later on. He is the one who render

this prayer: And say, "My Lord, cause me to enter a sound entrance and to exit a sound exit and grant me from Yourself a supporting authority." (Al-Isra (80): 17).

##### EMOTIONAL PREPARATION

It is important for psychologists to find a balance between setting aside personal feelings and giving empathy and support. There needs to be a balance in order to help client effectively and objectively. Too much empathy could lead to however, too little compassion could lead to ineffective treatment. Salyers, Fukui, Rollins, Firmin, Gearhart, Noll, and Davis (2015) define burn-out as a high level of emotional exhaustion, cynical attitude, and decreased personal performance that can negatively affect psychologists and their work with clients.

In addition, it is important for psychologists to be able to control their emotions. Muslim psychologists should be emotionally strong and seek for tranquility from Allah SWT. Therefore, they should always ask for guidance and protection from Allah SWT, as mentioned in a hadith: "O Allah I ask for protection in you from worries and sadness and I ask for protection in you from weakness and laziness and I ask for protection in you from misery and cowardice and I ask for protection in from You from overcoming debts and being controlled by people (Al-Bukhari).

##### SPIRITUAL PREPARATION

Muslim psychologists should not only be knowledgeable, but they must also be religious. This is in line with the statement by Oxhandler, Polson, Moffatt and Achenbaum (2017), helping professionals' should consider religious and spiritual beliefs and practices is an important components in the consideration of clients' religion/spirituality (RS) in mental and behavioral health treatment. Being religious brings a positive effect to the psychology in overcoming the problems and problems of the client himself. In addition, religious involvement was found to be associated with better physical and mental health and longer survival (Koenig, McCullough & Larson 2001)

From the cumulative evidence of the positive effects of religiosity on one's physical, mental and psychological well being, Muslim psychologist should always seek God's love or protection, have a strong relationship with transcendent powers, seek help in religious literature, ask for forgiveness, pray

for others, or reappraisal of the stressor. Muslim psychologists should be spiritually prepared. Allah SWT states in the Quran and Hadith: Abdullah ibn Mas'ud reported: I asked, "O Messenger of Allah, which deed is best?" The Messenger of Allah, said, "Pray at the right time" I asked, "What is next?" The Prophet said, "Do good to your parents." I said, "What is next?" The Prophet said, "Jihād in the way of Allah." I became silent and if I had asked him more, he would have told me. (Ṣaḥīḥ al-Bukhārī 2630, Ṣaḥīḥ Muslim 85).

#### MENTAL PREPARATION

Think positive or good (*husnul zan*) and negative thinking (*su'u zan*), are choices made by individuals on a daily basis depending on their attitude, knowledge and appreciation of the teachings of Islam. If one chooses to always be kind and positive minded, there are many things he can do and his ability to do these things is an indicator to measure the strength of the individual. On the contrary, when the individual chooses to think badly and negatively, then many things can not be produced, and he becomes a physically weak individual (Syaidatun 2017).

4IR deals with man made technologies, robots and innovations. This is a lifestyle created by brilliant people in order to make it easier, more advanced and modernized. It is as well a choice of life in the future of mankind. Whatever the situation in the future, one must remember that the commandments and the teachings of Islam will always be the same. As in the Quran, "Allah commands justice, doing good, and liberality to kith and kin, and He forbids all shameful deeds, and injustice and rebellion: He instructs you, that ye may receive admonition," Al-Nahl (16):90

#### KNOWLEDGE PREPARATION

The Fourth Industrial Revolution posed a serious challenge to society, and the implications for education and skills development were very significant. Kah and Reiko (2008) found that the majority of the respondents (90%) do not have good knowledge of psychological and mental health issues. The psychological assesment curriculum should be developed to educate trainees about the importance of the welfare component in psychology and develop the responsibility to ensure our health first, before helping others.

Psychologist should have a fundamental system ranging from basic to advanced level. This system is a system which psychologist will undergo continous assessment until they reach a doctoral level equivalent to standard American psychologist followed by a postdoctoral level. Universities offering psychology course programme should collaborate in structural field and offer psychology programmes for the postgraduate level to produce professional graduation that qualify with standard psychological qualification in Malaysia. The research program of scientists in the field of psychology will support the main objective to increase the number of scientist and researcher in this country (Shukran 2012).

Psychologists need to learn about self-care, appropriate and inappropriate intervention, and barriers and barriers faced by clients in dealing with mental health services. Psychologists do not feel they are ready to work with clients upon graduation, need to further their education to the postgraduate level. They also need to include additional and ongoing training as well as additional resources such as "good supervision," and "practical experience," to prepare psychologists to work with clients. Above all, Muslim psychologists should be equipped with the love for knowledge so that they will be able to equipped themselves with the adequate knowledge and skills towards excellent (Zahrin et al 2019).

#### EDUCATION PREPARATION

Generation Z, which is known for its sophisticated intelligence, is a worldwide concern because there is a growing genre in 4IR. The Gen-Z is able to exploit extraordinary assets from the internet and make computerized innovations into something imaginative, inventive and expressive (Majidah, Dian Hasfera & M. Fadli 2019). Gen-Z also needs to prepare for the 21st century competency learning system, whose teaching and learning methods are necessary to the concepts of learning without lectures, assessment without exams and knowledge without boundaries. This learning concept is seen as more effective and interactive. In addition, teaching and learning also need to adapt the methods of heutagogy (self-determined learning), paragogy or peeragogy (peer-oriented learning) and cybergogy (virtual-based learning) (Nor Azma 2018). As Khalil, Othman and Saidon (2020) state in their finding, lecturers and students in higher education are ready to adapt and face the changes of technology because they always follow the latest technology. According

to Uswatun and Herina (2019), students need to have higher order thinking skills (HOTs), and most importantly able to carry out 4C, namely:

1. Critical thinking, which is the ability to solve problems;
2. Creativity, that is, the ability to think outside the box, try new approaches to solve problems, innovations, and discoveries;
3. Collaboration that is how students work together, synergize, adapt in various challenges with other students to achieve common goals; and
4. Communication is the ability of students to convey and share their thoughts, questions and solutions in the best way.

In addition, education through Islamic religious among the students nowadays plays a vital role in enhancing students' self-control in the learning process, developing learning motivation through various media in accordance with Islamic teachings, and developing learning goals centred on the goodness of the world and the afterlife (Fitrianto 2020).

#### SOCIAL PREPARATION

Love for humanity is one of the studies included in the Islamic psychology of love, and may be suggested to be one parts of the social preparation. In a study done by Syaidatun et al (2017) through the course of Islamic and Asian Civilization Studies, the humanitarian love are focused as one of the alternative solutions to foster love throughout the world. The results of this conceptual study have identified indicators of humanitarian love; namely the desire to help without asking (altruism), philanthropy, caring, love of kindness, tolerance, simplicity, law-abiding, empathy, shared values and social responsibility.

Understanding and exploring the indicators of humanity's love through teaching and learning makes it a value that must be educated and applied to all. By inculcating these values, the future generations can enhance their humanitarian love within themselves, and be environmentally conscious and able to deal with social problems wisely and harmoniously. More loving individuals will promote more healthy mind and healthier lifestyles. Love for humanity with the identified indicators (Syaidatun et al 2017; Fatin Hazwani, Syaidatun Nazirah, Nasrudin, Khairul Hamimah, Nazilah & Fatin Nabilah 2017)

should be inculcated and nurtured in the younger generation in order to help Muslims face challenges of IR 4.0.

The Muslim psychologists should be socially healthy and function to the fullest as their time are well managed because the Prophet Muhammad PBUH reminded us to be productive as mentioned in a hadith: "Take benefit five before five: Your youth before your old age, your health before your sickness, your wealth before your poverty, your free time before you are preoccupied, and your life before your death" (Narrated by Ibn Abbas and reported by Al Hakim).

#### ICT SKILL PREPARATION

The information and communication technology (ICT) industry is at the forefront of the 4IR. ICT literacy and data analysis skills are required for Muslim psychologists. Psychologist should see the fourth revolutionary industry as a call to develop and integrate online- and computer-assisted psychological interventions. Computer-assisted interventions have the potential to reach and engage a much larger and diverse group of people. For example, digital career support could be offered in the form of online self-assessment, delivering online career information (e.g., through video or virtual reality), or offering video-based online counseling (Nota, Santilli, & Soresi 2016).

On the other hand, internet technology is one of facility that brings a person exposure to know each other and connect each other freely and openly. Teenagers tend to believe someone and over their trust in strangers and this will open the door to suspicious malicious intent to seize that opportunity. Low level of awareness and maturity, emotional influence and pressure of uncontrolled biological desires and law enforcement lead to the inevitable inclusion of intimacy. Girl who live in the neighborhood for instance who do not even know their neighbors, will get to know each other through social medium of internet connections Things will get easier if the girl feels lonely and the man will pretend to treat her with gently and nicely. The misuse of internet causes this girl become victim of human trafficking by irresponsible person.

Thinking about this crime (and millions of other crimes committed through technology), one should be equipped with good communication skills either in social interaction in space (front to front) or out of space (online). Muslim psychologists should be

able to invite the younger generations to safeguard themselves from wrongdoing through beautiful words, as mentioned the Quran, communicate with wisdom and beautiful preaching: “Invite (all) to the way of thy Lord with wisdom and beautiful preaching...” - Al- Nahl, (16): 125.

### IMPLICATIONS

Psychologists or professionals play biggest role in helping society deal with the psychosocial effects of the fourth industrial revolution. Therefore, this article emphasizes the importance of psychologist to prepare themselves physically, mentally, intellectually, spiritually and socially engage in the advancement of ICT. Psychologist have a responsibility to nurture, expose and advice community on the types of diciplines in psychology, the types of psychology that they practice, and explain their role to community. A well-concern psychologist is much needed in Malaysian community as we have diverse culture, beliefs, and ethnicities to face these challenges for a better Malaysia in future. Hence, roles of psychologist is needed to help in recovery aspect and make changes in community (Noraini 2012). Not only concerning the Malaysian, the Muslim psychologists all around the world should be able to endeavor in the Islamization and integration of knowledge that will contribute to the well being of the Ummah (Syaidatun 2020). Above all, Muslim psychologists should be able to use the Muslim scientific framework in facing the 4IR challenges (Zakaria 2019).

### LIMITATIONS

The primary limitation of this study is that the review was conducted through the mainstream of English literature databases. This will automatically limit the search as many studies are published in native languages across Muslim countries, such as Indonesia, Brunei, Pakistan and the Middle East. A comprehensive research review of these countries is essential to access the development of Islamic psychology and Muslim psychologists. Future studies should include research in religion and love for humanity as well as dissertations and conference papers that may yield important findings in resulting future research development.

### CONCLUSION

Psychologist is a group of enlighten academicians who are fully responsible in facing the challenge of 4IR. A well-prepared of physical, emotion, spiritual, intellectual, and social are vital from now on to face the great challenges of the future. The role of religion and love for humanity has been identified as a fundamental element to ensure that nature of humanity is still exist as 4IR takes over our lives in future.

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