The Existence of Islamic Education in the Era of the Industrial Revolution 4.0: Analysis of Education Policies in Indonesia

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Abstract

The ever-changing times have led to the need for changes in the field of Natural Education. Then the emergence of the industrial revolution 4.0 has caused an increasing demand for Islamic education to answer the various challenges that arise to remain relevant. This article aims to encourage a change or reform in Islamic education to face the era of the Industrial revolution 4.0. The method that will be used in this research is a qualitative approach. The data used comes from the results of the library study on the results of research or studies that have relevance to this research. This study found that Islamic education needs to be able to change itself if it wants to remain strong in the face of the times. Efforts to maintain the old system and shut themselves off from the times will make Islamic education slump and disappear.

Keywords: Disruption, Islamic Education, Industrial Revolution.

Introduction

Challenges to Islamic education have evolved and expanded in step with the times. It used to be frowned upon for students and professors to have personal chats, but it's pretty normal these days. It is essential even from the perspective of current educational theory. Such communication is a hallmark of a successful teaching method (Vallinkoski et al., 2022).

Another example of a paradigm shift is the way that education is approached. As a result, the teacher assumed a pivotal role in the classroom environment in classical Islamic

education. One may argue that it is the only source of information used in the classroom (Sahin, 2018). However, this is no longer the case in contemporary Islamic education. The modern teacher acts more as a facilitator for the students than a traditional educator. The emphasis has shifted from the instructor to the students, or "student-centered learning" (Tabroni et al., 2022).

It's safe to say that the shifts mentioned above and modifications will occur. The reason is people's wants, and requirements are constantly evolving. A graduate's ability to compete in the global market no longer rests on their breadth of education (Burbules et al., 2020). In addition, you'll need the right set of talents to meet the demands of the industry. If this doesn't change, teachers will be pushed aside and eventually extinct. For the most part, this is true, especially since the beginning of the 4.0 Era of the Industrial Revolution (Anshari & Hamdan, 2022).

The Fourth Industrial Revolution (henceforth, Era 4.0) had complex repercussions. There is no part of human existence that is immune to its effects. Education is a part of this. These days, cyber technology is indispensable to people. This is why the phrase "Education 4.0" may pop up in your research (Oke & Fernandes, 2020).

Professionals in education use the phrase "Education 4.0" to refer to a wide range of strategies for using cyber technology in teaching and learning. According to Jeff Borden, this is a significant improvement above education 3.0 since it draws on the fields of neuroscience, cognitive psychology, and instructional technology (Lopez et al., 2021). The term "Education 4.0" refers to a movement that has arisen in response to the demands of the Fourth Industrial Revolution, in which computers and humans work together to create new opportunities for discovery, innovation, and problem-solving (Schiele et al., 2021).

The question then becomes, how does Islamic Education respond to this movement? How can Islamic Education make the most of the chances already there while also meeting the challenges and overcoming the hurdles that aren't easy to deal with? Within the scope of this study, we want to capture the evolving nature of Islamic education in the 4th Industrial Revolution.

Literature Review

Understanding Islamic Education

Islamic education jargon can be parsed for at least two distinct meanings. First, an education in Islam, and second, an Islamic education. The first set of terms treats Islam as a topic in classrooms, whereas the second set treats Islam as a lens through which students of Islamic education can view the world (Ayyad, 2022).

According to Muhammad Hamid An-Nashir and Qullah Abdul Qadir Darwis, Islamic education is "a process of directing human development on the physical side, reason, language, behavior, and socio-religious life toward righteousness toward perfection" (Yaycioglu, 2018). According to M. Arifin's citation of Omar Muhammad At-Taumi Asy-Syaibani, Islamic education is an initiative to alter one's conduct in one's inner world, outer world, and natural surroundings (Campbell & Evolvi, 2020).

Since the first meaning of Islamic education has been universally accepted, the focus of the notion of Islamic education has shifted to the content, curriculum, and delivery mechanisms via which a teacher imparts Islamic education content to pupils (Hastasari et al., 2022). Allow us to assume that Islamic education is meant in the first sense. In that instance,

Islamic principles are passed down from elder to younger generations naturally, without fostering settings encouraging pupils to think critically and innovatively (Berglund & Gent, 2019).

Let's pretend the second idea helps us grasp Islamic pedagogy. Instead of seeing Islam as a collection of ideals to be taught in schools, it will see schooling as a process integral to the Islamic way of life (Zarkasyi, 2020). This indicates that Islam is not a subject that must be taught in schools; instead, it is the essence of what it is to be educated (Tanjung et al., 2021).

Pious Muslim adults attempt to use Islamic teachings to actively steer the development of students' nature (primary talents) toward their fullest potential. Education can be understood in two ways: either as a means of "feeding" (opvoeding) the souls of students to provide them with spiritual happiness or as a means of "developing" fundamental human abilities (Ahmed, 2021). You must go through the Islamic educational system, including the institutions and the curricular structure, if you wish to be guided to development following Islamic principles. The core of a person's transformative potential can be distilled down to their beliefs, knowledge, character, and life experiences. Islamic education aims to foster these four fundamental capabilities (Ashraf et al., 2021).

It can be concluded that what is meant by Islamic education is the process of guidance to humans which includes the physical and spiritual based on the teachings and dogmas of the Islamic religion in order to form the main personality according to Islamic rules in his life so that one day he will obtain happiness in the hereafter.

Islamic Education Goals

Muslim children should be taught to "improve their faith, understanding, appreciation, and experience regarding the Islamic religion, so that they may grow up to be human beings who believe and fear Allah SWT and have a noble character in personal, social, national, and state life" (Manshur, 2020).

Based on these goals, we may identify the following areas that will be prioritized and strengthened through Islamic education programs:

a. The extent to which pupils believe in Islam's teachings
b. Knowledge of Islamic doctrine and students' capacities for thinking and reasoning (intellectual)
c. Different levels of appreciation or inner experience felt by pupils when putting Islamic teachings into practice
d. The extent to which students' personal experiences, as well as their exposure to and internalization of Islamic teachings, can inspire them to act following those teachings and values as human beings who believe in and fear Allah SWT and to actualize and realize that belief and fear in the life of their communities, nations, and states (Jaedi et al., 2022).

Consistent with this description, Athiyah al-Abrasyi outlines Islamic education's five most important goals. It is essential to start by cultivating excellent moral fiber. In his view, the purpose of Islamic education is to help students become human beings with upright morals. This is in line with the primary purpose of the Prophet's being sent to this world: to improve and perfect human character (Asmuni, 2021). Second, the supply of life in this world and the hereafter. Both the spiritual and the secular are equally crucial in Islamic education. The Islamic educational system prioritizes both (Herz & Lalander, 2021).

Finally, encourage an interest in science and promote inquiry. Fourth, educate kids from a business, technical, and professional perspective to become experts in a chosen field, provide for themselves, and maintain their dignity as adults. Fifth, set yourself up to look for food and keep the good things you've gotten going (Halwani et al., 2021). As previously stated, Islamic education focuses on moral formation and aims to provide students with worldly knowledge. The provision is specific skills students can use to compete in life (Asif et al., 2020).

Then Ibn Khaldun argued that the purpose of Islamic education is spiritually and worldly oriented. Islamic education must form human beings who are obedient servants to Allah and form human beings who are able to face all forms of problems in world life (Abidin et al., 2022). Furthermore, al-Ghazali formulated the goals of Islamic education into two aspects, namely to form full-fledged human beings who aim to get closer to Allah and towards happiness in life in this world and in the hereafter. According to al-Ghazali, the goal of Islamic education is human perfection in this world and the hereafter. Humans can achieve perfection through knowledge to give happiness in the world and as a way to get closer to God (Shamsudheen et al., 2021).

So, the purpose of Islamic education includes two main aspects, namely realizing the happiness of life in the world and happiness in the hereafter. This illustrates that Islamic education is a complete education.

Industrial Revolution 4.0

Two (2) words make up the term "industrial revolution": "revolution" and "industry". The Big Indonesian Language Dictionary (KBBI) defines revolution as "rapid change," while the definition of "industry" is "an effort to apply the manufacturing process" (David et al., 2022). Therefore, if you combine the two (2) terms, you have a rapid shift in the manufacturing process. The goals of this rapid evolution are twofold: first, to increase output (quantity), and second, to enhance product quality (Zambon et al., 2019).

Friedrich Engels and Louis Auguste Blanqui coined the term "Industrial Revolution" in the middle of the 19th century. The time of this industrial revolution is likewise variable. The 2010s can be seen as the beginning of the fourth phase, or 4.0. A phase shift can be heard in how effectively it is used (Whelan et al., 2022). The invention of machines that facilitate the mechanization of production is central to the 1.0 period. The 2.0 iteration is now at the mass production phase when quality assurance and uniformity are built. By the 3.0 level, mass homogeneity has been achieved through digital integration. Fourth-generation (4.0) manufacturing combines the internet's digitalization and automation with traditional industrial processes (Kanger et al., 2022).

Disruptive innovation is one of the outcomes of the Fourth Industrial Revolution. Every facet of society now feels the effects of this phenomenon. From the business and economic sectors to the educational and political spheres and beyond. This occurrence has also affected the global population's way of life and outlook (Sharifi et al., 2021). Using information technology as an enabler, disruptive innovation can be understood as a challenge to established market leaders (Yang et al., 2022).

The diminishing income of motorcycle taxi drivers and companies is just one example of this trend in the real world. This drop in earnings was not due to a decline in motorcycle taxis or taxi ridership but rather to shifting customer preferences (Vanatta et al., 2022). Android-based ridesharing apps like GO-JEK, GRAB, and UBER have emerged in recent years as a result of developments in IT. Their services are accessible via a simple app download for

smartphone users. As a bonus, the installed rates are substantially lower. The incumbent transportation services were negatively impacted by the entry of these three new competitors (Khan et al., 2022).

Moreover, many jobs are lost due to disruptive innovation since machines replace human workers. Humans no longer need to check travelers' passports and visas at many international airports or issue boarding tickets and luggage tags because these tasks have been automated. New occupations, such as video-sharing website creators, website designers, bloggers, video game programmers, and so on, have also arisen due to the internet's influence (Brougham & Haar, 2020).

One of the benefits of disruptive innovation is that it can lead to several other benefits. At first, it's less of a hassle for people to get what they want. Companies that adopt cutting-edge technologies can keep expenses low, allowing them to undercut market leaders by offering products and services at considerably lower prices. This means that lower prices mean greater prosperity for customers (Ullah et al., 2018).

Secondly, convenience is increased by modern tools. Compared to the technology that has been around for a while, new developments will usher in new and advanced technology. So, it's safe to say that older technology is being replaced by newer, more advanced one (Lee et al., 2018). To conclude, encourage rivalry based on originality. As a developing nation, Indonesia requires new ideas to succeed. If a disruptive innovation hits a company in an industry, it will be forced to respond by introducing innovative solutions to keep up with the competition (Malerba & Lee, 2021).

The last is lower the unemployment rate. As a result of these developments, many new careers will open up. If technology doesn't create new industries, it can at least increase employment in existing ones. In addition, new employment prospects created by innovation may pay higher compensation than those of traditional occupations. Aim for higher rates of economic expansion (Schot & Steinmueller, 2018). Schumpeter theorizes that disruptive technologies will boost productivity through increased efficiency. Products' quality and output will improve because of these two factors. Conversely, with a rise in income, consumers are likely to spend more thanks to innovation (Lafuente et al., 2020). A rise in GDP eventually became the culminating development. In the long run, economic growth can be boosted by innovations that provide more excellent added value and have a relatively long shelf life each year (Fischer & Riechers, 2019).

Method

This research will be carried out using a qualitative approach. The data used in this research comes from various research results and studies that still have relevance to the discussion in this research. After the research data has been collected, then the data will then be processed by the researcher so that the results of this research can be found.

Result and Discussion

Islamic Education Problems in Indonesia

The main issue with Indonesian schools is their subpar teaching. This phenomenon illustrates the wide gap in educational quality between countries and regions. There are two general tendencies discernible in provincial indices of educational progress: above and below

the national average. The quality of education can be gauged by looking at factors like the number of students enrolled, the number of students who drop out, the number of students who repeat a grade, the student-teacher ratio, the teacher-school ratio, the teacher eligibility level, and the state of the school's physical facilities.

This inequality in education quality manifests itself in several ways. At least three key reasons can be derived from the ongoing phenomenon: There is a trend toward dumbing down the educational process to merely memorizing facts and formulas to pass exams (UN). Second, education is becoming subject to commercialization, where it is treated like any other commodity, traded and managed, much like in the profit-driven industrial world. Third, the only thing education seems to produce is a sense of institutional supremacy, in which schools grow more autonomous and authoritarian and covertly and overtly repress the authority of students' families.

Even before Indonesia gained its independence, Islamic education played a significant role in the development of the country as a whole. This may be observed in traditional Islamic educational institutions like taklim assemblies, recitation forums, surau, and Islamic boarding schools are still active and thriving today (Barton et al., 2021).

Islamic education in Indonesia faces the same wearisome issues that have plagued the country's regular school system. When a country's educational system is deemed unsuccessful because of persistent problems, it is also a failure of Islamic education. If we pay attention, we can see that contemporary Islamic education suffers internal and external challenges.

The ethos of modern Islamic education has its internal issues. In contrast to the shortage of science and technology programs at secular universities, the number of students enrolling in Islamic higher education institutions like madrasas and Islamic boarding schools appears promising. The premise that "Islamic pupils are inadequate in understanding, command of science and technology, communication, and politics" makes sense. The current ethos of Islamic education, it would not be unreasonable to assume, still does not pay attention to link and match when constructing its educational system.

Syamsul Ma'arif has expressed his concern over the situation of Islamic education today. The quality of Islamic education has significantly lacked compared to that of the West. Suppose we may be allowed a touch of melancholy. In that case, modern Islamic education cannot be like the golden age (Andalusia and Baghdad), which might serve as the epicenter of Islamic culture, art, and education. On the contrary, Islamic schools are increasingly adopting a Western model. Developed countries control most of the world's knowledge, so Muslim countries depend on the West for virtually every aspect of their lives. This includes everything from defense and weaponry to communication and information to economics and trade to education and scientific advancement.

This is a sad irony compared to the expansive view of education in the Qur'an. Even though madrasas and pesantren have historically played a pivotal role in bringing about social progress in Indonesia, many members of the local community are less interested than they once were in enrolling their children in madrasa and pesantren programs (especially those who are still muttering with the "salaf" system). Except for contemporary Islamic boarding schools, which are open to new ideas and practices from around the world. The public's skepticism of Islamic boarding schools and madrasas is evident in the widespread worry that its graduates won't be able to find work in the modern economy, which requires proficiency in technical skills.

Why is Islamic education so far behind the West, and what are the "criticisms" that Islamic education philosophers frequently raise? Several factors contribute to this: first, there is a lack of attention to the path education should take to be consistent with an Islamic worldview. The sole purpose of Islamic education is to impart religious knowledge. Everything happens in the future, and global events occur in the future. In addition, it is still decisive, which means that it protects Muslims from the contamination and destruction of Western ideas that arrive through numerous fields and undermine Islamic moral norms.

Second, Islamic schools do not incorporate contemporary scientific ideas into their curricula, preserving a timeless body of knowledge. Only the yellow book and the prima donna are utilized as references; the former serves as a yardstick for evaluating solutions to modern problems; the latter serves as inspiration for those solutions when the book's entries don't quite cut it.

Third, many Muslims are still lulled to sleep by the romantics of yesteryear. The achievements of Muslims throughout history continue to impact modern Muslims. They are stuck in the past, unable to see that their pride in their accomplishments is holding them back. As a result, most of them are too lazy to try to make changes, and thus they fall quickly behind in terms of social norms, political climate, and scientific and technological development.

Fourth, the education system is still sterile and behind the times, thus killing the critical power of children because the learning model of Islamic education still emphasizes the verbalistic intellectual approach while ignoring educative interactions and humanistic communication between teachers and students.

Students' freedom of thought is stifled according to their education model. A fundamental aspect of schooling is lost. Humanistically, education should be an endeavor to free people from the chains of ignorance, treating pupils as significant capital in cultivating their skills and character.

Muslims are still shackled and trapped by the dichotomization of Islamic education; they have a limited understanding of the essence of Islamic teachings; curriculum formats are not oriented, and the quality of human resources, systems, and strategies developed; evaluation methodologies are inadequate; and the implementation and implementation of Islamic religious teachings are insufficient.

On the other hand, Islamic education is challenged from beyond by the proliferation of scientific and technical breakthroughs that have led to the critique of conventional religious explanations based on textual analysis and scriptural interpretation. A period marked by rapid globalization in the information sector and consequential shifts in society, economy, and culture at large. This included the Fourth Industrial Revolution, which will be discussed in greater detail below. Fanatical absolutists, apologists, and truth claims tangled up in personal, political, and sociological interests represent yet another obstacle many religious communities face.

The Education Policy of the Government of Indonesia in Supporting Islamic Education in the Revolutionary Era 4.0

Islamic higher education is at a crossroads due to the revolutionary changes brought about by the Fourth Industrial Revolution. The ramifications of these junctures are distinct from one another. Options for Islamic education are available at no cost to the student. He must be ready and willing to let go if he gets left behind if he crosses one, namely, sticking with the

previous pattern and method. On the other hand, he will be able to compete with others if he is open and willing to accept the period of disruption with all its repercussions.

The impact of digital technology on the industrial revolution There will be a change in or completely eradicating 52,6 million occupations over the next five (5) years. This study's findings suggest that to succeed in today's global economy, one must take the competition seriously and arm oneself with competitive knowledge and abilities. Good behavior (behavioral attitude), increased self-competence, and a literate spirit is the primary means of preparing skills that are easy to take. Self-preparation can be transmitted through the means of education (long-life education), and self-concept can be gained through intergenerational and interdisciplinary teamwork (experience truly is the best teacher) (Kadarisman et al., 2022).

This fact alone necessitates a radical transformation of Islamic pedagogy. If Islamic higher education is to thrive in the 4.0 era, it must first disrupt itself. To self-disrupt is to anticipate societal changes and modify one's behavior accordingly. Muhadjir Efendy said that for national education to keep up with the changing world, schools need to be reformed, teachers need to be professionalized, curricula need to be dynamic, and infrastructure and technology for teaching and learning need to be modernized.

In addition to the challenges mentioned above, the lack of progress in Islamic education results from underlying difficulties for which no satisfactory solution has yet been identified. Rosidin disclosed four of the reasons why Islamic education is frequently criticized. Let's start with the generational gap or cultural chasm. This is because scientific and technological progress is occurring far more rapidly than educational progress. Efforts to speed up Islamic education have not kept pace with the rapid growth of science and technology. Because of this, Islamic schools are less adaptable to shifting social norms. Its necessity is thus increased if its instructional process loses some of its contextual nuances.

In addition, you've had the shame of being considered inferior. This second consideration is a knock-on effect of the first. Islamic education has a comfortable second-class reputation because of its delayed response to the dynamics of the development of science and technology and social reality.

Separating information into two categories is the third. Islamic education still needs to do its homework and reconcile the divide between Islamic science (PAI) and Western science (IPA, IPS, Language-Humanities). Many attempts have been made to combine them, but thus far, they have not produced fruitful results.

Item four is political dualism. The constant back-and-forth between the federal government and the states over educational policy in this country frequently sparks heated debate on the local level. Though there have been several objections and protests, no one agreed-upon answer has been found. Disagreements frequently arise when the Ministry of Education and Culture (Kemendikbud) has a different policy than the Ministry of Religion (Kemenag). Issues with compensation, professional accreditation, financial incentives for teachers, and similar variables are examples.

All the issues mentioned above will need to be resolved before Islamic Education 4.0 can be accepted. Without such an approach, it will be difficult, if not impossible, to provide students with an Islamic education relevant to the modern world. Therefore, as indicated above, Islamic education requires reform and renewal. Taking a cue from Rhenald Kasali, "disruptive

attitude," "self-driving," and "reshaping or creating" are the three actions that Islamic education must take in the 4.0 era.

An unstable frame of mind. A person's mindset is their way of thinking, shaped by their environment. Since the advent of the digital age and increased mobility, Islamic education has shifted to emphasize the need for ready access to information. Real-time and instantaneous responses are also expected in today's society. There ought to be nothing that can't be found right away. People will abandon it and go elsewhere if they wait too long to get what they need. In this age of disruption, requests are just replied to.

The user will be profoundly affected by the response time. According to Rhenald Kasali, this is the mentality of the business world. It is the responsibility of those who promote Islamic education to foster this mentality. That the services offered to users can shed their bureaucratic veneer. Additionally, Rhenald stated that persons with a business mindset have the following qualities: Firstly, it is not limited by either time or location. It's effective regardless of the time of day or size of the office. These individuals understand that their location and time constraints no longer prevent them from working. It's disabled via technological means. The modern human is always reachable, no matter the time or location. Applying this frame of mind to the administration of Islamic schools will result in a highly functional and efficient administrative structure. Teachers will be more adaptable and responsive to students' needs if they are embedded in the classroom environment.

As a second point, you should offer preventative assistance. High-quality graduates will be challenging if education continues to focus solely on transmitting knowledge from instructors in a classroom setting. There has been a shift in the educational paradigm; the focus is now on the students rather than the teachers. Educators must take greater initiative in making resources, guidance, and support available to their pupils.

Thirdly, they are not money-obsessed. Unlike bureaucrats, who are obsessed with saving money at any cost (not working if there is no budget). People that think in a businesslike manner continue to innovate even when faced with financial restraints. Maximize social media's impact for the fourth time. Islamic education administrators in the modern day need fluency in using the various forms of electronic and digital media at their disposal. Nowadays, social media is used for more than just passing the time. It's been upgraded into a helpful medium of expression, resource at work, and source of creative ideas. Our actions must make the most of this chance.

As the fifth piece of advice, try to find answers when you're having trouble and not preoccupied with trying to find an escape route. Also, sixth, you're not opposed to shifts. Specifically, in the modern period, transformation is now essential. A persistent or static management style will cause an institution to fall behind its rivals that employ more agile strategies. And seven, employ a strategic mindset and approach. There needs to be a defined process for running Islamic schools. The objectives set out must be achievable. That's why updating the Islamic educational system's pedagogy and goals is critical. The curriculum, vision, and yearly and semester program must make sense and be forward-looking.

Self-Driving. Companies that are agile and adaptable in the face of innovation have human resources departments staffed by "excellent drivers," not "passengers" (passengers). The ability to operate successfully, creatively, and efficiently and the willingness to share information and assess situations quickly and accurately are all hallmarks of a driving mentality HR professional. Leaders and administrators in Islamic schools especially need these skills.

They must learn to be responsible adults who can safely transport their institutions' students and staff. Competence on the part of managers, therefore, is insufficient. But it's not enough; leadership skills are also required. In contrast, HR professionals who take a passenger's perspective are often overly bureaucratic, unyielding, sluggish, and lack self-control.

Reform or invent. Among Muslims, there is a school of thought that emphasizes the importance of tracing one's ancestry back through the generations. The genealogy is "to maintain the old good and take the new which is better." As was previously noted, in the 4.0 era, speed and convenience are valued highly by humans. As you may expect, this calls for significant changes. So, Islamic education has two viable options for dealing with the modern world: reform or innovation.

By "reshape", we mean "keep the nice old one" from the family mentioned above the tree. In the 4.0 era, however, simple upkeep isn't sufficient; refinement must also be. Even the tried-and-true practices of yesteryear require some adjustment to keep up with the times. One area that needs work is human resource management and professionalism. Training and education might come from lectures, classes, seminars, workshops, college grants, and so on.

In contrast, you may try coming up with something brand new or "taking a fresh, better one", as it is written in the ancestry. In other words, the previous methods and structures are now useless. This renders it useless and obsolete. The only way out is to design a brand-new approach and framework from the ground up. Creating a brand-new digital service delivery system is one such example. To ensure that all citizens of Islamic educational institutions have unfettered access to all necessary educational and administrative services. E-learning, Blended Learning, and other modern, technology-enhanced education are good illustrations.

The Minister of Research, Technology and Higher Education at the Opening of the National Work Meeting of the Ministry of Research, Technology and Higher Education explained that there were five important elements that the Ministry of Research, Technology and Higher Education had to pay attention to and would implement to encourage the Industrial Revolution 4.0 era, namely:

a.   Preparation of more innovative learning systems in tertiary institutions such as adjusting the learning curriculum, and increasing student abilities in terms of Information Technology (IT), Operational Technology (OT), Internet of Things (IoT), and Big Data Analytics, integrating physical objects, digital and human to produce college graduates who are competitive and skilled, especially in the aspects of data literacy, technological literacy and human literacy.

b.   Reconstruction of higher education institutional policies that are adaptive and responsive to the industrial revolution 4.0 in developing the required transdisciplinary knowledge and study programs. In addition, the Cyber University program has begun to be pursued, such as the distance learning lecture system, thereby reducing the intensity of lecturer and student meetings. Cyber University is later expected to be a solution for the nation's children in remote areas to reach quality higher education.

c.   Preparation of human resources, especially lecturers and researchers and engineers who are responsive, adaptive and reliable to face the industrial revolution 4.0. In addition, rejuvenation of infrastructure and development of education, research and innovation infrastructure also needs to be carried out to support the quality of education, research and innovation.

d.   Breakthroughs in research and development that support the Industrial Revolution 4.0 and a research and development ecosystem to improve the quality and quantity of

research and development in Universities, Research and Development Institutions, Industry, and Society.

e.   Innovation breakthroughs and strengthening innovation systems to increase industrial productivity and increase technology-based start-up companies.

Furthermore, the emergence of E-Learning can encourage the democratization of teaching and learning processes by providing greater control in learning to students. This is very much in accordance with the national education policy as set out in Article 4 of Law Number 20 of 2003 concerning the National Education System. This Law states that "education is carried out in a democratic and fair manner and is not discriminatory by upholding human rights, religious values, cultural values, and national diversity".

Decree of the Minister of National Education No. 107/U/2001 clearly opens a corridor for conducting distance education. In this case, e-learning can play a role as one of the ways that can be used to carry out distance education.

Another educational policy that is being investigated by the government in facing the 4.0 revolution is by opening foreign universities in Indonesia. This policy itself has many polemics and raises various pros and cons among the public. However, this policy is basically still in line with Law no. 12/2012 Concerning Higher Education which indeed opens the door for foreign campuses to operate in Indonesia, as stipulated in article 90 paragraph (1). In this Law it is stated that "Higher Education Institutions of other countries can organize Higher Education in the territory of the Unitary State of the Republic of Indonesia in accordance with the provisions of laws and regulations".

Conclusion

As we enter a period of significant change, Islamic education must become more attuned to the signs of that transformation. If Islamic higher education is serious about growing, it must be open to change. Islamic education will deteriorate and become irrelevant if adherents insist on maintaining the status quo and rejecting new ideas worldwide. Therefore, Islamic education should focus on three goals: transforming the traditional mindset constrained by bureaucratic regulations into an innovative perspective that prioritizes corporate ways. As the 4.0 age calls for new forms of learning, Islamic education must also incorporate autonomous driving. To ensure that Islamic education is continually relevant to the needs and developments of the community, it must be constantly reshaped or created. Some of the educational policies made by the government are the opening of Cyber University, the widespread implementation of E-Learning, and the opening of foreign universities in Indonesia.

References

Abidin, Z., Sauri, S., Husaini, A., & Bahruddin, E. (2022). Wasatiyah-Based Islamic Education Learning in High School. Journal of Positive School Psychology, 6(8), 6164-6182.

Ahmed, F. (2021). Authority, autonomy and selfhood in Islamic education–Theorising Shakhsiyah Islamiyah as a dialogical Muslim-self. Educational Philosophy and Theory, 53(14), 1520-1534.

Anshari, M., & Hamdan, M. (2022). Understanding knowledge management and upskilling in Fourth Industrial Revolution: transformational shift and SECI model. VINE Journal of Information and Knowledge Management Systems.

Ashraf, M. A., Tsegay, S. M., & Ning, J. (2021). Teaching Global Citizenship in a Muslim-Majority Country: Perspectives of Teachers from the Religious, National, and International Education Sectors in Pakistan. Religions, 12(5), 348.

Asif, T., Guangming, O., Haider, M. A., Colomer, J., Kayani, S., & Amin, N. U. (2020). Moral education for sustainable development: Comparison of university teachers' perceptions in China and Pakistan. Sustainability, 12(7), 3014.

Asmuni, A. (2021). Moral Teachings and Spirituality in Manuscript Studies: A Critical Study of Social Values in the Digital Age. Journal of Social Studies Education Research, 12(4), 302-319.

Ayyad, E. (2022). Re-Evaluating Early Memorization of the Qurʾān in Medieval Muslim Cultures. Religions, 13(2), 179.

Barton, G., Yilmaz, I., & Morieson, N. (2021). Authoritarianism, democracy, islamic movements and contestations of islamic religious ideas in Indonesia. Religions, 12(8), 641.

Berglund, J., & Gent, B. (2019). Qur'anic education and non-confessional RE: An intercultural perspective. Intercultural Education, 30(3), 323-334.

Brougham, D., & Haar, J. (2020). Technological disruption and employment: The influence on job insecurity and turnover intentions: A multi-country study. Technological Forecasting and Social Change, 161, 120276.

Burbules, N. C., Fan, G., & Repp, P. (2020). Five trends of education and technology in a sustainable future. Geography and Sustainability, 1(2), 93-97.

Campbell, H. A., & Evolvi, G. (2020). Contextualizing current digital religion research on emerging technologies. Human Behavior and Emerging Technologies, 2(1), 5-17.

David, L. O., Nwulu, N. I., Aigbavboa, C. O., & Adepoju, O. O. (2022). Integrating fourth industrial revolution (4IR) technologies into the water, energy & food nexus for sustainable security: A bibliometric analysis. Journal of Cleaner Production, 363, 132522.

Fischer, J., & Riechers, M. (2019). A leverage points perspective on sustainability. People and Nature, 1(1), 115-120.

Halwani, M. A., Amirkiaee, S. Y., Evangelopoulos, N., & Prybutok, V. (2021). Job qualifications study for data science and big data professions. Information Technology & People.

Hastasari, C., Setiawan, B., & Aw, S. (2022). Students' communication patterns of islamic boarding schools: the case of Students in Muallimin Muhammadiyah Yogyakarta. Heliyon, 8(1), e08824.

Herz, M., & Lalander, P. (2021). 'Unaccompanied minors' in Sweden reflecting on religious faith and practice. Journal of Youth Studies, 24(8), 1085-1099.

Jaedi, S. A., Indra, H., & Tamam, A. M. (2022). Boarding School's Integral Education Curriculum In Secondary School. Journal of Positive School Psychology, 6(8), 6144-6163.

Kadarisman, M., Wijayanto, A. W., & Sakti, A. D. (2022). Government Agencies' Readiness Evaluation towards Industry 4.0 and Society 5.0 in Indonesia. Social Sciences, 11(8), 331.

Kanger, L., Bone, F., Rotolo, D., Steinmueller, W. E., & Schot, J. (2022). Deep transitions: A mixed methods study of the historical evolution of mass production. Technological Forecasting and Social Change, 177, 121491.

Khan, M. A., Ahmad, I., Nordin, A. N., Ahmed, A. E. S., Mewada, H., Daradkeh, Y. I., ... & Shafiq, M. (2022). Smart Android Based Home Automation System Using Internet of Things (IoT). Sustainability, 14(17), 10717.

Lafuente, E., Acs, Z. J., Sanders, M., & Szerb, L. (2020). The global technology frontier: productivity growth and the relevance of Kirznerian and Schumpeterian entrepreneurship. Small Business Economics, 55(1), 153-178.

Lee, M., Yun, J. J., Pyka, A., Won, D., Kodama, F., Schiuma, G., ... & Zhao, X. (2018). How to respond to the fourth industrial revolution, or the second information technology revolution? Dynamic new combinations between technology, market, and society through open innovation. Journal of Open Innovation: Technology, Market, and Complexity, 4(3), 21.

López, H. A., Ponce, P., Molina, A., Ramírez-Montoya, M. S., & Lopez-Caudana, E. (2021). Design framework based on TEC21 educational model and Education 4.0 implemented in a Capstone Project: A case study of an electric vehicle suspension system. Sustainability, 13(11), 5768.

Malerba, F., & Lee, K. (2021). An evolutionary perspective on economic catch-up by latecomers. Industrial and Corporate Change, 30(4), 986-1010.

Manshur, F. (2020). Typical Literary Works of Pesantren on Righteousness Teaching within Cultural Transformation. Journal of Social Studies Education Research, 11(4), 114-148.

Oke, A., & Fernandes, F. A. P. (2020). Innovations in teaching and learning: Exploring the perceptions of the education sector on the 4th industrial revolution (4IR). Journal of Open Innovation: Technology, Market, and Complexity, 6(2), 31.

Sahin, A. (2018). Critical issues in Islamic education studies: Rethinking Islamic and Western liberal secular values of education. Religions, 9(11), 335.

Schiele, H., Bos-Nehles, A., Delke, V., Stegmaier, P., & Torn, R. J. (2021). Interpreting the industry 4.0 future: technology, business, society and people. Journal of business strategy.

Schot, J., & Steinmueller, W. E. (2018). Three frames for innovation policy: R&D, systems of innovation and transformative change. Research policy, 47(9), 1554-1567.

Shamsudheen, S. V., Rosly, S. A., & Aljunid, S. A. H. (2021). Drawing ethical mentation in Islamic banks; addressing operational lines heterogeneity with special reference to Al-Ghazali's ethical philosophy. International Journal of Ethics and Systems.

Sharifi, A., Ahmadi, M., & Ala, A. (2021). The impact of artificial intelligence and digital style on industry and energy post-COVID-19 pandemic. Environmental Science and Pollution Research, 28(34), 46964-46984.

Tabroni, I., Irpani, A., Ahmadiah, D., Agusta, A. R., & Girivirya, S. (2022). Implementation and strengthening of the literacy movement in elementary schools pasca the covid-19 pandemic. Multicultural Education, 8(01), 15-31.

Tanjung, E. F., Harfiani, R., & Sampedro Hartanto, H. (2021). Formation Of Soul Leadership Model In Indonesian Middle Schools. Educational Sciences: Theory And Practice, 21(1), 84-97.

Ullah, F., Sepasgozar, S. M., & Wang, C. (2018). A systematic review of smart real estate technology: Drivers of, and barriers to, the use of digital disruptive technologies and online platforms. Sustainability, 10(9), 3142.

Vallinkoski, K., Koirikivi, P. M., & Malkki, L. (2022). 'What is this ISIS all about?' Addressing violent extremism with students: Finnish educators' perspectives. European Educational Research Journal, 21(5), 778-800.

Vanatta, M., Rathod, B., Calzavara, J., Courtright, T., Sims, T., Saint-Sernin, É., ... & Craig, M. (2022). Emissions impacts of electrifying motorcycle taxis in Kampala, Uganda. Transportation Research Part D: Transport and Environment, 104, 103193.

Whelan, M. J., Linstead, C., Worrall, F., Ormerod, S. J., Durance, I., Johnson, A. C., ... & Tickner, D. (2022). Is water quality in British rivers "better than at any time since the end of the Industrial Revolution"?. Science of the Total Environment, 157014.

Yang, S., Kim, Y., & Choi, S. (2022). How to Respond to Disruptive Innovation in Online Retail Platforms. Journal of Open Innovation: Technology, Market, and Complexity, 8(3), 130.

Yaycioglu, A. (2018). Guarding Traditions and Laws—Disciplining Bodies and Souls: Tradition, science, and religion in the age of Ottoman reform. Modern Asian Studies, 52(5), 1542-1603.

Zambon, I., Cecchini, M., Egidi, G., Saporito, M. G., & Colantoni, A. (2019). Revolution 4.0: Industry vs. agriculture in a future development for SMEs. Processes, 7(1), 36.

Zarkasyi, H. F. (2020). Imam Zarkasyi'S Modernization of Pesantren in Indonesia. Qudus International Journal of Islamic Studies (QIJIS), 8(1), 161-200.

Md. Jannatul Ferdous, Nayan Sarker, Chinmoy Das, Md. Tabil Ahammed, & Zayed Mohammad. (2022). Design and Analysis of A High Frequency Bow-tie Printed Ridge Gap Waveguide Antenna. Journal of Image Processing and Intelligent Remote Sensing(JIPIRS) ISSN 2815-0953, 2(02), 11–23. https://doi.org/10.55529/jipirs.22.11.23

Md. Tabil Ahammed, Shadat Hossain, Md. Mehedi Hasan, Golam Rabby, & Nazmul Huda. (2022). Superior Short circuit & Overcurrent Protection of Devices like Alternator, Transformer etc. Journal of Image Processing and Intelligent Remote Sensing(JIPIRS) ISSN 2815-0953, 2(02), 24–31. https://doi.org/10.55529/jipirs.22.24.31

Dr. Sobha Manakkal, Rajeenamol P T, & Sundaramoothi P. (2022). A Comparative Study Of Different Topologies Of Transformer less AC-DC Converters. Journal of Image Processing and Intelligent Remote Sensing(JIPIRS) ISSN 2815-0953, 2(03), 1–9. https://doi.org/10.55529/jipirs23.1.9

Hemang Desai, & Birajkumar V. Patel. (2022). A Model for Gujarati News Search Engine by Link Builder and Web Crawler Algorithms. Journal of Image Processing and Intelligent Remote Sensing(JIPIRS) ISSN 2815-0953, 2(03), 10–13. https://doi.org/10.55529/jipirs.23.10.13

Ms. Ritu Bhatiya. (2022). "A Study and Analysis on Color Coded Cryptography on Textual Data". Journal of Image Processing and Intelligent Remote Sensing(JIPIRS) ISSN 2815-0953, 2(04), 1–7. https://doi.org/10.55529/jipirs.24.1.7

Ida Ayu Putu Anggie Sinthiya, & Sri Ipnuwati. (2022). Ethics of Internet Use (Digital Netiquette) in UU ITE Perspective: Building a Courteous Digital Culture in the Era of Digital Transformation. Journal of Image Processing and Intelligent Remote Sensing (JIPIRS) ISSN 2815-0953, 2(04), 8–14. https://doi.org/10.55529/jipirs.24.8.14

Akanksha Rajora. (2021). Exploring the Connection among Character and Occupation Execution with Exceptional Reference to North Western Railline Association. Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 1(01), 1–10. https://doi.org/10.55529/jmc.11.1.10

Payal, & Dr. Pradeep Kumar Gupta. (2021). Library Learning and Information Services of Library, its Setup, and Type of Library. Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 1(01), 11–18. https://doi.org/10.55529/jmc.11.11.18

Dr. Barsha Kalita, & Dr. Kaivalya T. Desai. (2021). Geriatric Social Work Practice: A Case Study of an Elderly Woman Tea Plantation Worker. Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 1(01), 19–25. https://doi.org/10.55529/11.19.25

Vivek Thoutam. (2021). Physical Design, Origins and Applications of IOT. Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 1(01), 26–33. https://doi.org/10.55529/jmc.11.26.33

Manish Kumar Sharma. (2021). Artificial Intelligence's Prospects and Uses in Hospitality Industry: Literature Review. Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 1(01), 34–42. https://doi.org/10.55529/jmc11.34.42

Dimithrove K. G. (2021). Life in A Metro: The Challenges and Hardships Faced by Transgender Persons in Kochi. Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 1(02), 1–5. https://doi.org/10.55529/jmc.12.1.5

K Hinoca Assumi. (2021). Tribal Empowerment In India: Issues And Challenges In The State Of Nagaland. Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 1(02), 6–17. https://doi.org/10.55529/jmc.12.6.17

Hukam Chand. (2021). Agrarian Polices in British Punjab . Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 1(02), 18–23. https://doi.org/10.55529/jmc.12.18.23

Kiran. (2021). Women Empowerment and the Power Politics: A Feminist Perspective of the Contemporary Indian Scenario. Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 1(02), 24–28. https://doi.org/10.55529/jmc.12.24.28

Dr.G.Mary Sunanda. (2021). The Role Of Debates And Awareness Camps In Teacher Education Pedagogy Helps Teachers The Better Communicators IN Teaching Learning Process. Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 1(02), 29–39. https://doi.org/10.55529/jmc.12.29.39

Nitasha Walia. (2022). Promoting Ethics And Morality In Education For Equality, Diversity And Inclusivity . Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 2(01), 1–9. https://doi.org/10.55529/jmc.21.1.9

PRASANTH. P S. (2022). Cow, Army And Nationalism: A Political Dialogue. Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 2(01), 10–15. https://doi.org/10.55529/jmc.21.10.15

Punita Sacher. (2022). EFFECT OF SCHOOL ENVIRONMENT IN DEVELOPING LANGUAGE CREATIVITY AMONG ADOLESCENTS AMIDST LINGUISTIC DIVERSITY. Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 2(01), 16–21. https://doi.org/10.55529/jmc.21.16.21

Romy Kumar, & Dr. Som Raj. (2022). WOMEN AND ARTS EDUCATION IN JAMMU AND KASHMIR: PROBLEMS AND PROSPECTS. Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 2(01), 22–27. https://doi.org/10.55529/jmc.21.22.27

Sini Paul. (2022). Child Adoption In India: From A Human Rights Perspective. Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 2(01), 28–35. https://doi.org/10.55529/jmc.21.28.35

Yasir Ahmed. (2022). Photographic Representation Of Women Athletes In The Indian Print Media During The 2020 Tokyo Olympics Games: A Study Of Select Indian English Daily Newspaper The Hindu. Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 2(02), 1–9. https://doi.org/10.55529/jmc.22.1.9

Ashwani Kumar, & Dr. Meenu Sharma. (2022). Impact of Terrorism on Khem Karan Town (Majha Region) of Punjab (1980-1993). Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 2(02), 10–15. https://doi.org/10.55529/jmc.22.10.15

Mulungsenla A.Jamir. (2022). A Critical Analysis of Writers Post Third Wave Feminism. Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 2(02), 16–21. https://doi.org/10.55529/jmc.22.16.21

Nitesh Kr Baunthiyal, & Savita Bhandari. (2022). Representation of Multiculturalism and Issues in V S Naipaul's 'The Middle Passage'. Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 2(02), 22–27. https://doi.org/10.55529/jmc.22.22.27

Priya Choudhary, Hariom Sharma, & Kashish sharma. (2022). Spirituality as an intervention in Old Age home: Literature Review. Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 2(02), 28–35. https://doi.org/10.55529/jmc.22.28.35

Irawan, A. ., Anggraeni, E. Y. ., Maseleno, A. ., & Ipnuwati, S. . (2022). The Best Student Decision Support System (Basketball) to Represent Pringsewu Regency in the Event of Kejurda Ku 16-17 Using Topsis Method . Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 2(03), 1–15. https://doi.org/10.55529/jmc23.1.15

U. Fathima Risna, & M.N. Nuska Banu. (2022). A Study on the Problems, And Issues of the Handloom Industry; A Special Reference of Maruthamunai Area. Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 2(03), 16–27. https://doi.org/10.55529/jmc23.16.27

Leonid Spirin. (2022). Analysis of Basketball Selection Systems On The Example of The Usa And Uzbekistan. Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 2(03), 28–32. https://doi.org/10.55529/jmc23.28.32

Buang, M. H. B. M. . (2022). Meta Analysis: Relating to Entrepreneurship and Business Tendencies. Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 2(03), 33–38. https://doi.org/10.55529/jmc23.33.38

C., O. I., U., I. E., & U., O. J. (2022). Comparative Studies on Bioethanol Production from Some Sugar Based Agricultural Wastes. Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 2(03), 39–44. https://doi.org/10.55529/jmc23.39.44

C., O. I., U., I. E., & U., O. J. (2022). Comparative Studies on Bioethanol Production from Some Starch Based Agricultural Waste Peels. Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 2(04), 1–6. https://doi.org/10.55529/jmc24.1.6

Abbas, M. K. ., & Hussaini, M. H. A. . (2022). Universal Educations of College Policy – Trainings for Pakistanian on Modernization and Danger. Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 2(04), 14–20. https://doi.org/10.55529/jmc24.14.20

Addaquay, A. P. . (2022). The Interconnection of Text-Melody in Selected Works of Newlove Kojo Annan's Choral Writings. Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 2(04), 21–32. https://doi.org/10.55529/jmc24.21.32

Selvi, M. ., & Saraya, D. P. . (2022). Students' Perceptions on Corrections. Journal of Multidisciplinary Cases (JMC) ISSN 2799-0990, 2(04), 33–52. https://doi.org/10.55529/jmc24.33.52

Mercy Ugbede Enemali, Danung Istifanus Yilkahan, & Tamizhazhagan V. (2021). Antibiotic Susceptibility and Biofilm Formation of Clinical Isolates of Pseudomonas Species from Wounds Specimens. International Journal of Agriculture and Animal Production(IJAAP) ISSN 2799-0907 , 1(01), 1–8. https://doi.org/10.55529/ijaap.11.1.8

Saadu Umar Wali, Murtala Abubakar Gada, Kabiru Jega Umar, Aminu Abba, & Abdullahi Umar. (2021). Understanding the Causes, Effects, and Remediation of Salinity in Irrigated Fields: A Review. International Journal of Agriculture and Animal Production(IJAAP) ISSN 2799-0907 , 1(01), 9–42. https://doi.org/10.55529/ijaap.11.9.42

Fasdarsyah, Teuku Mudi Hafli, & Anggriyani Diana Rizky. (2021). The Effect of Land Use Changes on the Paya Tumpi Flash Flood, Central Aceh District. International Journal of Agriculture and Animal Production(IJAAP) ISSN 2799-0907 , 1(02), 1–9. https://doi.org/10.55529/ijaap12.1.9

Rashid Manzoor Bhat. (2021). Reign of Utpala Dyansty with Special Reference to Avantiverman (855-883 A.D): His Irrigation Works and Agricultural Development-A Historical Study. International Journal of Agriculture and Animal Production(IJAAP) ISSN 2799-0907 , 1(02), 10–16. https://doi.org/10.55529/ijaap.12.10.16

Fanny .E. Akhile, & Emmanuel .E. Ikheloa. (2022). Impact of Credit on Arable Crop Production in Esan West Local Government Area, Edo State. International Journal of Agriculture and Animal Production(IJAAP) ISSN 2799-0907 , 2(01), 1–14. https://doi.org/10.55529/ijaap.21.1.14

Onuguh, I. C. ., Ikhuoria, E. U. ., & Obibuzo, J. U. . (2022). Assessing the Potentials of Some Agro-Waste Peels Through Proximate Analysis. International Journal of Agriculture and Animal Production(IJAAP) ISSN 2799-0907 , 2(02), 1–6. https://doi.org/10.55529/ijaap.22.1.6

Onuguh, I. C. ., Ikhuoria, E. U. ., & Obibuzo, J. U. . (2022). Comparative Proximate Analysis of T. Occidentalis (Fluted Pumpkin) Leaves Sold In Three Different Markets in Benin City, Nigeria. International Journal of Agriculture and Animal Production(IJAAP) ISSN 2799-0907 , 2(02), 7–12. https://doi.org/10.55529/ijaap.22.7.12

Umarfarooq A Halyal, & Maheajabeen A Choudhary. (2022). Indigenous Cosmetic Home Remedies by Utilizing Waste Food, Vegetables and Organic Products. International Journal of Agriculture and Animal Production(IJAAP) ISSN 2799-0907 , 2(02), 13–22. https://doi.org/10.55529/ijaap.22.13.22

Mohd. Shakir Hussain Choudhury, & Habibullah Mazumdar. (2022). Forest Conservation without Conservancy: A Study on the Cachar Reserve Forest and its Disforestation. International Journal of Agriculture and Animal Production(IJAAP) ISSN 2799-0907 , 2(03), 1–13. https://doi.org/10.55529/ijaap.23.1.13

Aschalew Sisay, Tarekegn Garomsa, & Lemmi Legesse. (2022). Effects of Brewery Beer Bio-sludge and Liquid Biofertilizer on Performance of the Malt Barley Yield, Grain Quality and Soil Fertility at Arsi and West Arsi Zone, 2017 Ethiopia. International Journal of Agriculture and Animal Production(IJAAP) ISSN 2799-0907 , 2(03), 14–32. https://doi.org/10.55529/ijaap.23.14.32

Tojola O. B., Lajide L., Owolabi B. J., & Olaleye M. T. (2022). Comparative Study on the Antimicrobial Activity of Some Selected Medicinal Plants on Klebsiella Pneumonia & Candida Albicans. International Journal of Agriculture and Animal Production(IJAAP) ISSN 2799-0907 , 2(04), 1–8. https://doi.org/10.55529/ijaap.24.1.8

Narmine Slimani, Soumaya Arraouadi, & Hafedh Hajlaoui. (2022). Biochemical and Physiological Behavior against Salt Stress effect on two Quinoa accessions (Chenopodium quinoa Willd.). International Journal of Agriculture and Animal Production(IJAAP) ISSN 2799-0907 , 2(04), 9–19. https://doi.org/10.55529/ijaap.24.9.19

Kyari, Emmanuel Multafu, Abdul Hameed Ahmad, Garba Aziza Salisu, Olajemilo Modupe Eunice, & Muzafar Iqbal. (2022). Effect of Chromium Toxicity on Germination and Early Seedling Growth in Maize (Zea Mays L.). International Journal of Agriculture and Animal Production(IJAAP) ISSN 2799-0907 , 2(04), 20–27. https://doi.org/10.55529/ijaap.24.20.27

Ms. Manju Rani. (2022). Regional Variation in Agriculture Production, Productivity and farm Income in Haryana: A Composite Analysis. International Journal of Agriculture and Animal Production(IJAAP) ISSN 2799-0907 , 2(04), 28–34. https://doi.org/10.55529/ijaap.24.28.34