The Digitalization of Education and Implication for the 21\textsuperscript{th} Century Skills of The Millenial Moslem Generation

Imron Muttaqin

IAIN Pontianak, imron.muttaqin@gmail.com

\textbf{ABSTRACT}

The sophistication of information technology has changed the educational model to become anti-establishment related to scientific authority, material literacy, time and place for religious learning. All knowledge is available on internet seem perfect and good. This study is library research aimed to describe the experience of the millennial moslem generation. The findings inform three critical points; first, the interaction process with the digital sources has imply for reducing the critical power of problem-solving. Second, The intensity in the digital world of seeking information makes communication styles changed, and third, digital education led limited interaction and collaboration. For further researcher are suggested to conduct study on strategies or methods to get authoritative sources for religious literature for students.

\textit{Keywords:} Digitalization, Skills, 21\textsuperscript{th} Century generation

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I. INTRODUCTION

The era of the industrial revolution 4.0 brought changes to various aspects of human life (Hendriyaldi, 2019). The field of education has undergone radical changes. The rapid development of information technology based on computing power, the Internet, and big data will change the human work system. This change is considered progress because it provides convenience for humans in their activities, including facilitating the learning process. However, advances in information technology can also change human behavior in a negative direction, out of the ethics and culture of the previous society (Zaborovskaia et al., 2020).

Digitalization is an actual form of the use of artificial intelligence technology (\textit{artificial intelligence}) in human life (Ossiannilsson, 2020). The emergence of the millennial generation also marks this digital era. This generation is familiar with information technology and is also known as the digital generation (Ryndak, 2021). Since this era,
changes in community social interactions, especially the millennial generation, have changed, which are marked by changes in aspects of cognition and action. The younger generation pays more attention to activities in cyberspace than the social world. Likewise, with the way they communicate, they prefer to convey their ideas or emotions in public spaces online through their social media.

The presence of digital information technology that runs so fast has changed many things in modern human life. The structure and value system in society change without them realizing it very neatly; technology changes people's mindset and behavior according to the characteristics of technology, such as its fast-paced nature, which tends to lead to an impatient attitude when there are obstacles in the digital work system. Moreover, society is currently moving towards the unification of digital culture, which makes the world's population into one universal world (global village); the loss of boundaries/barriers that traditionally separate people, can interact cross-culturally, across space, and time.

The development of digital media in all its applications will continue to be a determinant of the intensity and quality of interaction between humans (Kocyigit & Kucukcivril, 2021). In more specific cases, such as activities in education. Technology has opened up new offers for learning, such as learning to use online and offline applications "guru's room" this digital era shifts society towards a more advanced, able to do work independently more quickly without spending much time and high operational costs (Hatos, 2019).

Digitalization of information makes everything possible. By putting the logic of signs in search, people will become "audiences" flooded with information. The public will be fascinated by the sophistication of information technology because it is provided sensualistic digital convenience. While entering the search space, digital activity continues to increase, and at that time, public space is narrowing itself. As a result, they are likely to continue to be reduced in their ability to interpret social reality wisely (Sutton, 2013).

The digital society views the entire series of production and
distribution processes are highly dependent on information technology. Information is capital; thus, information will be in the constellation of everyday human life and is used in various economic, political, and educational activities (Arsić, 2020). So, information is a precious commodity in people's lives in the digital era. (Johan, 2018)

The digital society will continue to be flooded with information from new media due to the development of information technology. Through the process of information commodification, structuration and specialization, information is made available for floodwaters that spill in various directions. This information exposure, on the one hand, makes it easy for a person or organization to solve various things, but also becomes a burden on humans so there is a contradiction in a digital society, namely because the more information they receive, it is difficult to digest information critically. So they cannot use the information to construct a better reality for themselves and the surrounding environment.

Academics researchers have conducted research on the challenges of digitalization and artificial intelligence for modern economies, societies, and management. They came to the conclusion that both digital technologies are assumed to destroy a significant number of jobs while momentarily simultaneously creating new jobs that are very different from those that were destroyed (Clauberg, 2020). To reduce the negative consequences, extensive employee training will be necessary. To improve the likelihood of switching careers to a different profession, broader training may even be required. Additionally, technical data about digitalization in cyber-physical systems points to a risk that calls for global solutions.

Additionally, research findings reveal the use of digital technology comment on how the technology's quick development strengthens organizational work systems and creates many new prospects for human advancement (Ossiannilsson, 2020). Every aspect of life, including obtaining an education and working in office, changes as society changes. Additionally, it asserts that human behavior and new habits have changed as a result of digital evolution, which affects how we live,
work, communicate, interact with one another, and learn.

Education, science, social science, communication, and business are affected by information and communication technology. Particularly, digital technology has drastically altered how we educate ourselves and others. The study concentrated on the radical changes that digital technology has brought about in education. Particularly in Saudi Arabia, the use of digital gadgets in the classroom has grown indispensable, fundamentally altering student behavior. Today’s students frequently use digital technology to assist them with schoolwork and browse the Internet for research, which serves as an example of the uncomplicated use of this technology.

This study focuses on the efficacy, efficiency, and effectiveness of digital technology in the higher education system and discusses concerns related to it and its impact on the Saudi Arabian higher education system (Alaboudi & Alharbi, 2021).

The author found a gap in conducting a critical study to add to the treasures of the digitalization of Islam. This study is relatively rare, especially on the issue of the impact of digitalizing of religious literature on human skills in the 21st century to complete tasks. The researcher raised the theme of "Digitalization of Islamic Education and Its Implications for the 21st Century Skills of the Millennial Moslem Generation". This study is fascinating to discuss because societal changes determine how millennials use digital technology. The way they use digital information technology significantly impacts the professional and social skills or competencies of the Moslem millennial generation in Indonesia. These competencies are essential for youth in dealing with social, economic, and educational problems in the era of disruption.

II. METHOD

A qualitative approach was used in this study because it aimed to analyze the digital capabilities of the young Islamic generation in the digital era. This study aimed to find meaning from context, not generate data in numbers as is usually used in quantitative research. This research data was obtained from scientific journal articles and books according by the research objectives. The data
collection technique in this study is documentation from notes, books, papers or articles, journals (Arikunto, 2010). Google scholar and Mendeley was used for looking for article related to this study using “Digital religious literature” as keywords. There are 206 articles from google scholar and

III. RESULTS AND DISCUSSION
A. Digitizing Religious Literature

Digitalization is converting visual information available on paper into a proper digital form. Another expert states that digitalization is the process of translating pieces of information such as a book, sound recording, video, or image, into bits. A bit is a computer system’s basic unit of information (Khin & Ho, 2019). Meanwhile, others state that digitalization is understood as the process of converting all forms of printed or other documents into digital presentations (Oliveira, 2021).

The presence of digital media seems to restore religion in people’s lives without distance, and the European community feels this. So far, religion is only part of private life that is not known by the public. Religion in the digital space is crucial in today’s global politics and culture. Religion is moving dynamically following the flow of technology (Evolvi, 2021). Religious attitudes have moved from a culturally marginal zone to the mainstream. So the question arises about what might have caused religious attitudes to become mainstream.

The contemporary understanding of civilization states that, during modern times, theology has been replaced by philosophy, orientation to the past with orientation to the future, traditional teachings with subjective evidence, loyalty to origins with innovation, and so on. Nevertheless, in reality, the modern era is not an era where the sacred has been abolished, but the era of its spread in the profane space, democratization, and globalization. Religious rituals used to be practiced in isolated holy places (Malik, 2021). In the digital age, religious rituals have become the fate of entire worlds and cultures. Under such conditions, it is not surprising that religion is becoming increasingly successful in its various manifestations.

The European community perceives the new configuration of the digital media field as something different; religion becomes the
mainstream, shifting the position of science and politics. The main supporting factor is the Internet. The Internet is an open space to launch the aggression of contemporary religious knowledge. This digital media can become a propaganda space for religious values that are believed to (Helland, 2016). They can do so without the help of any agency or permission from the government to post religious content. The Internet provides flexible movements as a means to operate with complete sovereignty.

Religion is adaptive in a cultural and social setting because religion also responds to the cultural environment. However, in the process of appreciating the beliefs of a religion, nothing can be shown unless religious events are made into symbols or religious codes that are socially and culturally acceptable.

B. 21st-Century Skills

The term 21st-century skills refer to the broad set of knowledge, skills, work habits, and character traits that educators, school reformers, college professors, entrepreneurs, and others believe are critical to success in today's world. this." In simple terms, 21st Century Skills refer to the skills needed to enable one to face the challenges of a globally active, digitally transformed, collaborative 21st-century world. They are moving forward, advancing creatively, and seeking competent and fast human resources in adopting change (Aslamiah et al., 2021).

The 21st century is known as the century of knowledge, according to futurologists, because of the millennium period. Numerous changes in many facets of life have taken place in this century. Because change can occur in an instant, it is challenging to foresee. Rapid change in this century can present opportunities if managed wisely, but it can also be fatal if not beneficial for the digital society. As a result of modern advancements like television and computers, people in the new millennium are constantly being inundated with information. Information accessed via media tools may not always be accurate; anyone can post content online, internet search results may be outdated or irrelevant, and accessing information may call for research and critical thinking, which implies that every person must be literate (Monteiro & Leite, 2021).
Five main skills categories are:
analytical skills (critical thinking, problem-solving, decision-making, research, and investigation); interpersonal skills, communication, collaboration, leadership, and responsibility (Finegold & Notabartolo, 2010); the ability to execute (self-direction and initiative, and productivity); information processing (information literacy, media literacy, digital citizenship, ICT operations and concepts); and capacity.

Finegold and Notabartolo proposed three categories of 21st-century skills, which are as follows: learning and innovation skills (critical thinking and problem solving, communication and collaboration, creativity and innovation); digital literacy skills (Finegold & Notabartolo, 2010); and career and life skills (flexibility and adaptability, initiative and self-direction, social and emotional intelligence, and self-management). No matter what names or categories are given to these abilities, they are all required in today's complex environment. According to Saavedra and Opfer (2012), they primarily concentrate on complicated and challenging to teach thinking, learning, and communication abilities.

Everyone needs learning and innovation abilities, such as creativity, communication, critical thinking, and cooperation, according to the opinion above. To adapt to a complicated world, these abilities are necessary. P21 asserts that pupils must be able to think creatively, cooperate, apply innovation, reason persuasively, employ systems thinking, make decisions, resolve issues, and communicate effectively in order to succeed in the twenty-first century.

Due to the extensive use of technology, which calls for some functional and critical thinking skills, skills in using media and technology are also necessary. Information literacy, media literacy, and ICT literacy are these abilities. Students must be able to use technology successfully, access and evaluate information, use and manage information, analyze and produce media, and analyze and evaluate information.

Life and career skills make up the final skill group and include adaptability and flexibility, initiative and self-direction, social and cross-cultural competence, productivity and
accountability, and leadership and responsibility. Individuals who possess these life skills should be able to adapt to change, be adaptable, manage objectives and time, work independently, be independent learners, engage with others successfully, work effectively in varied teams, manage projects, produce results, mentor and lead others, and be accountable to others. In specifically, Kan’An (2018), citing the Metiri Group and NCRel, has suggested the following 21st-century framework:

<table>
<thead>
<tr>
<th>No</th>
<th>Aspect skill</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Digital Age</td>
<td>Basic, scientific, economic, and technological literacy</td>
</tr>
<tr>
<td></td>
<td>Literacy</td>
<td>Visual and information literacy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Multicultural literacy and global awareness</td>
</tr>
<tr>
<td>2</td>
<td>Inventive Thinking</td>
<td>Adaptability, managing complexity and self-direction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Curiosity, creativity and risk-taking</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Higher order thinking and reasonable reasoning</td>
</tr>
<tr>
<td>3</td>
<td>Effective</td>
<td>Teamwork, collaboration, and interpersonal skills</td>
</tr>
<tr>
<td></td>
<td>communication</td>
<td>Personal, social and civil responsibilities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Interactive communication</td>
</tr>
<tr>
<td>4</td>
<td>High Of</td>
<td>Prioritize, plan and manage results</td>
</tr>
<tr>
<td></td>
<td>productivity</td>
<td></td>
</tr>
</tbody>
</table>

The impact of religious literature digitalization on millennial generation’s 21st century skills.

The millennium era is a digital era, every time humans use advanced technology for various purposes. The millennial generation, who is currently developing themselves, has never been separated from information technology. Various features and applications are used to browse information. The wave of transformation of the digital system as a primary tool by the industrial world is used as a pillar of policy and decision-making by companies and educational institutions. Today’s society makes the Internet a potential industrial commodity (Alshammari et al., 2019).

Digitalization of Islamic religious literature is the presentation of information and data about religion digitally, a transition from the traditional way to the digital way. This system is believed to be a relationship between digital information and 21st-century skills. The higher a person uses technology, the more likely he is to improve his literacy skills and get more information. However, it can also
be seen that there is a negative relationship between digital literacy users in several vital aspects of their social life.

**C. Impact of Islamic religious literature digitalization**

Based on the results of a field survey taken from the data source, 120 Moslem students in universities provided information that while using information technology, they stated they had different benefits from before. Here is the complete data:

The data detail can be seen on table 1 as follow:

<table>
<thead>
<tr>
<th>No</th>
<th>Jenis manfaat</th>
<th>Presents</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Facilitate religious literacy</td>
<td>85/102 people</td>
<td>According to students, they can obtain information from various sources and various religious information in a short time. They usually chat directly with the cleric or by email and video calls/google meet to expand their knowledge quickly and more validly.</td>
</tr>
<tr>
<td>2</td>
<td>Work/study productivity</td>
<td>90/108 people</td>
<td>Students find it very helpful in completing tasks such as making papers, reports, and making videos using digital literacy.</td>
</tr>
<tr>
<td>3</td>
<td>Digital skills</td>
<td>99/119 people</td>
<td>Students state that by using digital systems, they are increasingly skilled in using digital hardware and operating systems.</td>
</tr>
<tr>
<td>4</td>
<td>Expanding social network</td>
<td>100/120 people</td>
<td>Students stated that with digital technology, namely social media, they could develop social networks with their colleagues from various regions at home and abroad. They share information.</td>
</tr>
</tbody>
</table>

Based on the results of a field survey on the use of information technology during the study period in tertiary institutions, information was obtained that the millennial generation studying in higher education is very intensive in using information technology. They spend more than 15 hours active in online media.
Table 2. Survey result

<table>
<thead>
<tr>
<th>No</th>
<th>Skill aspect</th>
<th>Indicator for Skill</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Creativity and innovation</td>
<td>Analyze and evaluate information</td>
<td>2</td>
<td>105</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Making connections between information</td>
<td>5</td>
<td>110</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Interpretation and drawing conclusions</td>
<td>9</td>
<td>91</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Doing critical reflection</td>
<td>1</td>
<td>111</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>Critical thinking/problem solving</td>
<td>Reasoning properly and correctly</td>
<td>0</td>
<td>80</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Solve uncomm on problem s</td>
<td>4</td>
<td>106</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clarifying information to find solutions</td>
<td>2</td>
<td>105</td>
<td>13</td>
</tr>
<tr>
<td>3</td>
<td>Communication</td>
<td>Direct commun ication</td>
<td>12</td>
<td>60</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Listening well to find meaning</td>
<td>4</td>
<td>87</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Using the media and thinking about</td>
<td>30</td>
<td>75</td>
<td>15</td>
</tr>
</tbody>
</table>

Description: 1=Never; 2 Sometimes; 3 often/always

Based on the data in the table above, it is known that there are still few students who sincerely carry out the process of analyzing the information obtained from searches on Google. The information obtained is used as a source and content or ideas in answering a problem given by the lecturer. Even some of them cheat in expressing their ideas. Like when students copy and paste writing onto a worksheet. This instant way of learning influences the ability to create a new idea. If this is allowed by the campus, the academic activities
carried out by students are academic lies. This continues to happen when stakeholders do not exercise proper control. Lecturers or teachers will find it difficult to check the work done digitally if they do not have sophisticated tools.

Academic problems given by lecturers to students require complete sources of information. This can be met if students carry out the literacy process from various sources. They were looking for the relationship between the variables being discussed so that it could prove the truth of the data and information obtained digitally. Nowadays, anyone can be a source of religious information. Digital media quickly uploads religious information without including the source. Even a lot of information obtained is not from the experts. Because the information is obtained instantaneously and not through a communication process between sources, the conclusions are inaccurate and may mislead the reader.

Academics have never discussed interesting issues about religion because of changes in the context behind the problem. Not all religious problems in society can be found a solution in the explanations of the scholars who lived 100 centuries ago. Therefore we need to reflect on our own experiences and explore experiences from the surrounding environment. Knowledge construction from personal experience becomes a good source of knowledge because it is experienced directly. Likewise, when students complete assignments or are discussing a problem, it is essential to dig up information from their own experience and compare it with facts from other people’s experiences. Based on the field survey results, it turns out that most of them use digital information technology but ignore the innovation aspect in completing tasks.

The millennial generation, currently 17-21 years old, is generally used to finding information quickly. However, that alone is not enough, and it is still necessary to reason correctly according to the purpose of work. In solving problems, a sound reasoning process is needed. All information that enters us must be reasoned before it is used or exploited. In everyday life, we often get information from social media friends and groups. The information should be analyzed first or
According to the general truth, information should also be interpreted, not immediately accepted as it is; pay attention to linguistic aspects whether or not it is common in our culture. The fact is that with digital facilities that are so extensive and easy, the Moslem millennial generation prefers to receive religious information from sources that are not necessarily valid but are directly shared with friends or groups.

Humans are given by Allah the mind to choose and sort out what is good and what is vanity. Likewise, when students solve a problem or face a problem, it is better to carry out a clarification process on information obtained both from direct sources of people around them and from other sources obtained online (Ayu, 2019). Based on the data above, it is stated that finding much information and ease is enough to be used as a basis for solving a problem. The lazy habit of verifying the source of truth seems to have started to be massive among the younger generation of Indonesian Moslems. They have the enthusiasm to seek information but are weak in verifying the truth of the information. All problems can be solved correctly if someone has done critical filtering of information according to the context that is the basis of the problem.

The generation that excels in the millennium era is the generation that actively communicates both orally and in writing (Brous et al., 2020). Oral communication is essential in solving a problem. Conveying ideas and ideas persuasively in clear sentences is a skill millennials must possess. The data presented above shows that only 40 per cent of the millennial generation always communicate ideas or ideas to other people who are considered more knowledgeable about the problem. They are reluctant to talk to others because they are less afraid of being judged as stupid. They tend to be silent and accept all information obtained from online sources that are not known to be true.

The oral communication ability of the millennial generation has not been directly proportional to its speed and intensity in the digital world. For example, in classroom learning, only 10% of students willingly respond verbally to what is being discussed in class, both virtual and authentic. Students also do not have the experience of communicating in writing to convey their ideas. However, he actively writes comments in public
spaces through social media such as Facebook, Instagram and Telegram in a non-academic context. For communication through social media in non-academic contexts, 98% of millennials are active for more than 18 hours per day.

Expressing opinions orally and in writing is an essential skill for everyone (Al-Hakim, 2021). After being explored further through interviews, students prefer to read things that are entertaining or populist news or news that is viral on social media. They communicate with their friends in the context of adding information or just so that other people know that they are updated on the things that are currently trending. They should use it when they are in class and meet their lecturers to communicate directly, asking various things related to the lecture theme. Classes that are so open to communication have not been an option for students to exchange ideas influenced by psychological factors. Shame and fear of being wrong are still the dominant factors for passive students in the classroom.

The basic skills that are very important in life in the millennial era are the skills to work together or collaborate. This skill is essential because no one can solve problems individually in the era of disruption. The world has developed, and the field of work has been opened so widely, while human abilities are limited to only a few areas of expertise. Therefore, collaboration skills must be improved. The data presented above shows that the attitude of collaboration has not become a culture among students. Only 34 people said they continuously work together to solve problems in an academic context. While most prefer to work independently because they feel more secure, they do not feel that there is pressure or control over their work.

The millennial generation is also characterized by the ability to compromise by sharing parties in finding solutions to a problem. Compromise is an attitude of being willing to accept the opinions of others (Aslamiah et al., 2021). In doing cooperation, of course, many ideas from various people in the group. Not all opinions from other people agree with us. Therefore, it requires the ability to compromise with other opinions or accept people's opinions that do not conflict with the truth they believe in, even though they come
from different sources. The survey data shows that they tend to have a high compromising attitude, namely, 85% of them always compromise with other people’s opinions in solving problems. This is different from collaboration skills, and they tend to like to solve problems independently.

Taking responsibility for working collaboratively is part of 21st-century skills. Effective collaboration can be realized if each group member can take responsibility for his work. The data in the table above shows that students’ responsibilities are still low in completing assignments. When Islamic religious learning takes place, there is always room for collaboration so that each student plays a role following the division of tasks. However, because each person has access to the same information, students often shift responsibility to the group leader. This experience illustrates that information technology that is so easy to obtain changes a person’s attitude to be less creative because work can be completed quickly by digital technology.

Digitalization of religious literature makes all information easily accessible and usable, and in this digital space, anyone can act as a supplier of religious information (Tsuria et al., 2017). They can act as if they are pious people who understand religion. They are free to seek information and spread religious content on the social media they follow. Digitalization of religious literature, on the one hand, makes it easier on the other hand to confuse the truth of religiously charged information. It is even possible for people who are not Moslem to participate in creating content resulting from reading other people’s writings. Because the Internet is free, there is nothing forbidding content with no clear author or creating an account that does not match the original or contains a false identity.

Table 1 shown the ease of accessing religious literature in the digital space, millennials who are currently students can quickly find information for various purposes. However, it should be underlined that with this convenience, there is a latent dangerous that will endanger the alienation of creative values and selection for information. This is supported by the low intensity of direct communication with experts in the field of religion. With sophisticated smartphones, they already get truth of
the information, so they are reluctant to confirm with several available sources.

**IV. CONCLUSION**

The digitaly literature has several effect for the millennial moslem generation; *First*, the availability of digitally religious information makes the Moslem millennial generation feel that the need for religious knowledge has been fulfilled. The Moslem millennial generation prefers to read information correctly, they not verify it, so what is written as a document for academic assignments is often not in accordance with general religious values. *Second*, the moslem millennial generation has become less critical in seeing a problem. What is seen, heard and read on the Internet is used as a reference for opinion and attitude. *Third*, the moslem millennial generation tend to be passive in seeing a problem and reluctant to engage in dialogue with religious leaders and scholars to gain reinforcement of religious values. The dialogue space is limited to a virtual space, even though the Islamic values that have been actualized consistently exist in those who practice their knowledge. Therefore, communication to get a religious explanation is significant so that when solving problems, it is based on the results of thoughts that experts verify. Digital liberation has built a new culture in acquiring religious knowledge. Almost independently, students can find, collect and use the information without any control from anyone, so new habits grow on the millennial Moslem generation is individualistic people. This study reveals the fact that a lot of disinformation has an effect on the younger generation of Moslems, as well as its impact on social life and even shakes their beliefs that have been adhered to. The young generation of Moslems millenial are expected to do croscek based on authoritative sources so they can compare various reliable sources, if necessary, they must discuss with experts in their fields in order to get a comprehensive understanding. Further researchers are suggested to conduct study focused on strategies and methods on how to get valid sources by triangulation or other strategy.

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