Ethics of Using Technology in Strengthening Students Religious Character

*Amriani[1], Bunyamin Maftuh[2], Encep Syarif Nurdin[3], Makhmud Safei[4]

[1,2,3,4]Universitas Pendidikan Indonesia, Jl. Dr. Setiabudi No.229, Bandung, West Java, Indonesia

*amriani@upi.edu

ABSTRACT: *In the current era of globalization, technology is increasing and offers many unstoppable conveniences. This is the biggest challenge for humans, so all parties must be jointly responsible for controlling the use of technology to be in harmony with human values. This study examines the ethics of using technology to strengthen students' religious character. This study uses a qualitative research design with a phenomenological approach, namely research that focuses on individual experiences of a phenomenon by collecting data through interviews, observation, and documentation. Ten people became research subjects, including five lecturers and five students. The resulting data were analyzed through data reduction, presentation, verification, and conclusion. The use of technology brings positive impacts and ethical challenges. Studies show that religious beliefs influence students' religious character, and character strengthening can be done through religious education and the wise use of technology. Integrating ethics and strengthening religious character will create a society that is responsible, cultured and has a solid ethical awareness in the digital era. The findings from this study can provide students with an in-depth understanding of the importance of the ethical use of technology.*

Era globalisasi saat ini, teknologi berkembang pesat dan menawarkan banyak kemudahan yang tak terbendung. Inilah tantangan terbesar bagi manusia, sehingga semua pihak harus bersama-sama bertanggung jawab mengendalikan penggunaan teknologi agar selaras dengan nilai-nilai kemanusiaan. Penelitian ini bertujuan mengkaji etika pemanfaatan teknologi untuk memperkuat karakter religius siswa. Penelitian ini menggunakan desain penelitian kualitatif dengan pendekatan fenomenologi, yaitu penelitian yang menitikberatkan pada pengalaman individu terhadap suatu fenomena dengan pengumpulan data melalui wawancara, observasi, dan dokumentasi. Sepuluh orang menjadi subjek penelitian, termasuk lima dosen dan lima mahasiswa. Data yang dihasilkan dianalisis melalui reduksi data, penyajian data, verifikasi, dan penarikan kesimpulan. Penggunaan teknologi membawa dampak positif dan tantangan etika. Studi menunjukkan bahwa karakter religius siswa dipengaruhi oleh keyakinan agama dan penguatan karakter dapat dilakukan melalui pendidikan agama dan penggunaan teknologi yang bijak. Mengintegrasikan etika dan memperkuat karakter religius akan menciptakan masyarakat yang bertanggung jawab, berbudaya dan memiliki kesadaran etis yang kuat di era digital. Temuan dari penelitian ini dapat memberikan pemahaman

mendalam kepada mahasiswa tentang pentingnya penggunaan teknologi secara etis.

I. INTRODUCTION

Science has rapidly developed in various technological fields, such as industry, medicine, communication, transportation, and architecture, making human life easier (Hwang et al., 2015). Information and communication technology has brought countless benefits, especially in meeting the needs of the modern era. For example, with all its sophistication, communication technology enables someone to connect with the world more easily and quickly (Roztocki et al., 2019);(Olsson & Jarusriboonchai, 2020).

Technology has also developed in the education sector, with learning technology innovations designed to improve learning and research programs (Zhang & Aslan, 2021);(Haleem et al., 2022). Along with the COVID-19 pandemic, online media has become the primary means for learning activities and other online forums (Lange & Costley, 2020);(Jasiah et al., 2021). Therefore, technology can provide advantages for Communication Centers (Hailegebreal et al., 2022), but it needs to be done with appropriate ethics.

The rapid development of modern communication technology has made it easier for individuals to communicate quickly and widely (Dwivedi et al., 2021), bringing benefits to society (Mormina, 2019). However, social media raises concerns about various threats (Dhiman, 2023). Technology has inherent values that can influence moral values (Klenk, 2021).

The advancement of science and technology during the era of globalization can bring benefits and damage to the values of humanity if not adequately regulated. The ease of access to various information and activities offered by technology, on the one hand, brings benefits, but on the other hand, it can have negative impacts, such as gadget addiction, difficulty concentrating, free association, and pornography (Wolff, 2021);(Chien et al., 2021).

Excessive and uncontrolled use of social media consumes time and reduces opportunities to be more productive. In addition, the use of technology can also raise ethical issues, such as spreading false information or misusing personal data that can harm others. On the other hand, the younger generation needs to build strong and positive character, as they can communicate with anyone worldwide without geographical limitations. However, personality issues such as cyberbullying and disobedience in using social media can cause discomfort and injustice (Giumetti & Kowalski, 2022);(Alamgir et al., 2022);(Zhu et al., 2021). This shows that humans are experiencing a moral crisis. The development of negatively oriented technology can reduce character values (Vedechkina & Borgonovi, 2021);(Beer & Mulder, 2020). Nevertheless, many positive things emerge, especially in the field of communication.

According to research conducted by (Gajek, 2020), crowdsourcing has become a new method of language learning and a continuation of Computer Assisted Language Learning (CALL) in various technological, social, and ethical contexts. The use of crowdsourcing not only opens up new opportunities in the concept of CALL in general but also raises questions about ethics, motivation, and contribution. Technology has provided platforms such as Duolingo, Bussu, and Babbel for language learning with active assistance.

Technology is a fundamental need for humans in building civilization and demonstrating human capabilities and advantages in utilizing technology. A previous study conducted by (Yılmaz & Çelebi, 2022) discussed the views of information technology teachers on the influence of value education on student attitudes and behaviour in the ethics of informatics taught in information technology and software courses. This study was conducted on IT teachers working in schools that teach value education through Selcuklu values using purposive sampling methods. The results of this study show that the values taught in value education are related to IT ethics in various aspects, such as personal, family, community, morality, teachers, and the curriculum.

This study focuses on a pedagogical system at the NAES Vocational Education and Training Institute of Ukraine, aiming to nurture professional ethics in future social workers. Using active context learning and simulations, the system motivates students to acquire ethical knowledge, skills, and abilities. The research's primary goal is to develop effective training systems that foster professional ethics, producing ethical and responsible professionals ready for the future's social challenges (Roksoliana Zozuliak-Sluchyk, 2019);(Steele et al., 2020).

From previous research, there is a gap that needs to be addressed in the ethics of using technology to strengthen the religious character of students. Two important aspects that will be explored are the application of ethical values in the use of technology and the strengthening of the religious character of students to avoid misuse of technology. In this context, the researcher will adopt critical thinking about morality so that humans can live a blessed life by God Almighty, which is the primary goal of using technology. This will also contribute to the lives of humans and the universe. This research will seek solutions to overcome challenges in life that are full of hope. Based on the background of the problem, several questions will be answered in this study, including the following: (1) How can technology be used ethically in the context of developing the religious character of students in a tertiary institution? (2) What is the impact of using technology in strengthening the religious character of students, and how can related ethical issues be overcome in the process?

The goal is to ensure that technology has a tremendous positive impact on the lives of the nation's generations and helps students strengthen their religious character. The researcher will critically analyze various aspects of the use of technology, such as the use of social media and other applications. In addition, the researcher will explore the ethical values that must be applied in using technology, such as privacy, security, and justice. In strengthening the religious character of students, the researcher will develop strategies and programs that can help students improve their religious and moral values. This program will involve the appropriate use of technology to facilitate student learning and character growth. This research is expected to positively

contribute to the development of ethics in the use of technology and also help students strengthen their religious character.

II. METHOD

This study used a qualitative research design with a phenomenological approach that emphasizes understanding individual phenomena or life experiences from the individual's perspective and understanding the meaning given by informants to their experiences (Creswell, 2013). This study aims to reveal the responses and feelings of informants to obtain a comprehensive picture of the research question. Data collection techniques through observation and in-depth interviews allow individuals to describe their experiences in detail and reflection. Data analysis in the phenomenological approach involves organizing data into themes or categories that describe the meaning and describe the results.

III. RESULT AND DISCUSSION

Ethics of Technology Usage

The phenomenon of using technology today has experienced rapid development and shaped the way people interact, work, and live their daily lives. The following phenomena reflect how technology affects today's society: (1) Dependence on Mobile Devices, i.e. Smartphones and mobile devices, affects how we communicate and interact. (2) Social Media and Digital Interactions such as Facebook, Instagram, and Twitter influence how to communicate and build social networks. (3) E-commerce and Online Shopping, E-commerce increases online shopping convenience. (3) Health Technology and Telemedicine, Telemedicine enables remote health services. (4) Digital Gap, some groups still have gaps in access to technology. (5) Distance Learning and E-learning, e-learning increased during the COVID-19 pandemic. (6) Internet of Things (IoT) and Connectivity, IoT creates a connected environment with intelligent devices.

The phenomenon of using technology today shows that technology has become an integral part of people's lives, bringing positive impacts and ethical challenges that must be addressed wisely. Along with technological developments, the public must continue to face and deal with its implications and effects effectively and responsibly by dealing with provocative and hoax news content, accessing sites that provide positive insights and getting used to a culture of reading carefully before commenting.

Ethics is a field of study that considers the fundamental nature of morality and develops norms to resolve moral problems (Varkey, 2021). Ethics focuses on evaluating and developing norms of behaviour within the context of moral assessment, reflecting the need to live morally (Igras et al., 2021). Ethics is also closely related to love, which involves a desire to do good and avoid evil and loving others as oneself (Macer). In the study of ethics, debates such as morality are often a concern (Archer, 2021). Additionally, ethical behaviour should be taught alongside ethical awareness to create a society with ethical sensitivity (Okougbo et al., 2021);(Kreismann & Talaulicar, 2021). To achieve this, individuals must be built with sensitivity to ethics (Fletcher, 2021);(Maxwell et al., 2021).

Religious Character of College Students

The formulation for character education must fulfil the needs of the younger generation in facing the changes and challenges of the times. To overcome global challenges and social and cultural changes, quality education that is in line with the values of Pancasila, cultural values, and religious values is necessary, as expressed by (Balakrishnan et al., 2021). According to (Magolda, 2020);(Critchfield, 2021), character development must be done wisely and consciously, with goals that are good for individuals and society as a whole. (Lickona, 2012) also states that character education consists of three main elements: knowing, loving, and doing the good. Therefore, character can be seen as an individual's natural response to situations reflected in actual actions through good behaviour, honesty, responsibility, and high respect for others. Strengthening character has a higher meaning because it involves habits in daily life, high awareness and understanding, and concern and commitment to implement policies in daily life. Character is also related to faith and sincerity in Islamic thought.

Religion is crucial in developing student character and studying how religious beliefs can influence their goals and values. Religious beliefs can affect the goals and values of students and assist them in self-development (Torralba et al., 2021). Religious understanding can influence adolescent development positively (King et al., 2021). Various factors, including interaction with the social environment and parental influence, influence adolescents' religiosity development. Adolescents with very high or deficient levels of religiosity tend to remain stable over time, while those with moderate levels of religiosity in early adolescence tend to experience a decline in religiosity (Schnitker et al., 2021). Religiosity and spirituality in adolescents are essential because they can provide valuable insights into supporting the development of adolescents' health and psychological well-being, as well as understanding how religion and spirituality play a role in shaping meaningful values and behaviours in their lives (Hayward & Pearce, 2021).

(De Soto et al., 2018) explains that students more involved in religious practices tend to have higher moral values and more confidence in facing academic challenges. Through religious practices, students can develop religious character traits that include self-confidence, resilience, and honesty. Religious practices also influence students' moral values, such as work ethics, empathy, and openness. In her book, (Jalal, 2022) discusses topics related to the religious character of students, including the influence of religious beliefs on personal development, involvement in religious communities, and the impact of spirituality on academic success. Consistent with research conducted by (Aydin, 2018), spiritual intelligence affects self-regulation, and religious practices can positively impact students' well-being. Other studies also show the importance of developing religious character in students to improve their holistic well-being (Moulin-Stożek, 2020);(Hayati et al., 2020). Therefore, religiosity and resilience can help students reduce stress and demonstrate the importance of developing religious character in students to improve holistic resilience (Estrada et al., 2019);(Yang & Wang, 2022).

Strengthening Religious Character of Students

The rapid development of technology can impact the development of noble character in the younger generation. To strengthen a character's presence in society (Arwen & Puspita, 2020) states, that character is essential in a nation. If a character is lost, then

the next nation's next generation loses direction and purpose. Therefore, the character is vital as a guide and strength to maintain the nation's stability.

Strengthening character aims to shape the morals of the younger generation to be intelligent and skilled in facing technological information (Mayerson, 2020). Implementing strong character values, especially in religious character, can be a solid foundation for shaping a noble and spiritually intelligent younger generation, becoming pillars in building the nation's civilisation (Suriadi & Supriyatno, 2020);(Subaidi, 2020). This aligns with (Skrzypińska, 2021) that civilization and morals cannot be separated. History has shown that the destruction of civilization occurs when the morals of a society decline. Therefore, spiritual intelligence must be made a social control in community life so that the nation can build an excellent and dignified generation. This aligns with Allah's command in the Quran that the destruction of a society occurs because they neglect His teachings (Q.S. Al-A'raf). Therefore, to build an advanced nation, it is essential to first shape the younger generation's character.

Religious Character Strengthening by (Sauri et al., 2022) states that strengthening a person's religious character can occur through the internalization process of religious values in daily life. This can be achieved through three stages: *First*, in the identification stage: a person recognizes and understands their religious values. *Second*, the internalization stage: a person incorporates those religious values into their internal value system. *Third* is the actualization stage: a person applies those religious values daily.

(Furqon & Hanif, 2022);(Kolb, 2023) explained that Islamic religious education positively influences the religious character of students, particularly in the aspects of faith and morality. Other factors such as the university environment, organizational culture, and social experiences also influence the strengthening of religious character among students. Boarding schools (*pondok pesantren*) have also been believed to be a place for strengthening the religious character of students.

(Purwanto et al., 2021) explained that boarding schools play a crucial role in shaping students' religious character, particularly in faith and morality. Furthermore, boarding schools provide quality education and support student potential development. Similarly, research conducted by (Sulaiman et al., 2022) in Malaysia showed that religiosity has a positive influence on Islamic work ethics, job satisfaction, and organizational citizenship behaviour among Muslim employees in Malaysia.

In Malaysia, Islamic work ethics includes concepts such as trustworthiness, benevolence, and reliance on God, which are applied in various aspects of work. According to (David & Iliescu, 2022);(Yafiz et al., 2022), an individual's moral development occurs in three stages: pre-conventional, conventional, and post-conventional, thus religious education is considered to be able to strengthen one's religious character can help individuals move into the conventional and post-conventional stages, where individuals begin to consider widely accepted moral values and also consider more complex worldviews. (Setiartin & Casim, 2021);(Arif & Elya, 2021);(Estrada et al., 2019) emphasized the importance of religious values in character development and considered how religious values can be involved in building desired virtues.

The Application of Ethical Values in Using Technology

Applying ethical values in technology is very important to ensure that technology is used responsibly and does not harm others. Here are some ethical values that can be applied in using technology:
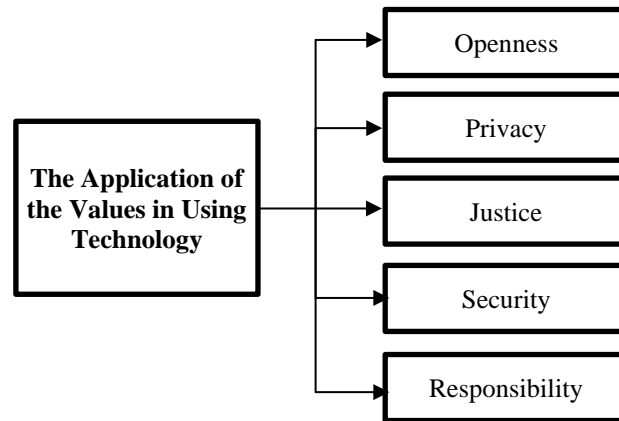
Diagram 1. Application of ethical values in using technology

1. Openness: It is essential to ensure the technology is not operated secretly or hides information from users. Users should be informed of the risks associated with the use of technology and how technology may affect individual privacy and freedom.
2. Privacy: It is essential to ensure that technology is not used to retrieve personal data or undermine the privacy of others. This can be achieved by using technology that has a sound security system and respects the privacy rights of individuals.
3. Fairness: Technology must be fair and not discriminate against certain groups. Technology should be available to everyone without discrimination and not cause societal injustice.
4. Security: It is essential to ensure the technology is safe and does not harm users and the public. Users must ensure that the technology has been tested and have a sound security system.
5. Responsibility: Users of technology must be responsible for the use of technology and its impact on others and society. This can be achieved by complying with regulations and ethics in the use of technology and taking responsible actions.

Applying ethical values in using technology is essential to ensure that the responsible use of technology does not harm others. This will help create a more just, safer, and quality society. Ethical values help the individual to understand his existence and organize his way of life in a way worthy of being a caliph. However, achieving this requires cooperation from all parties and is carried out professionally in building morals, ethics, and morals.

Ethical education aims to form a virtuous human being, able to understand his existence as a caliph and can contribute to society, state, and religion. Humans have thinking skills that can be used to develop their knowledge and culture. The intellect used to think deeply will help man understand nature and produce science.

In today's digital age, internet ethics is becoming a fundamental concept, mainly as more and more children and teenagers use the internet. The use of technology in educational institutions should include issues such as copyright, plagiarism, privacy, and security (Peters et al., 2022). The growth of social media use in the younger generation also requires similar attention (Lupton, 2021);(Shankleman et al., 2021).

The younger generation, accustomed to social media and influenced by technology, must be equipped with human values to build a superior and thriving civilization. One way to build a positive digital culture is to start with yourself. We can access sites that provide positive insights and form positive communities to educate positive content. This will help form a generation that is intelligent, productive, informative, democratic, independent, responsible, and able to face the challenges of the times (Interview, WOD, 2023).

The Importance of Ethical Values in Using Technology

Technology can be a handy tool to strengthen the religious character of students by providing access to information, educational resources, and new learning experiences. However, along with technology's rapid development, there are various ethical challenges in its use, especially related to privacy, security, and openness. Therefore, students need to understand and apply good ethics in using technology so that technology can be used effectively and responsibly to strengthen their religious character. Therefore, it is necessary to develop potential with ethical values, strength of faith and firm belief as a support to face social unrest through the window of information technology.

This digital generation has abundant and fast access to technology and information, and society is like grasping the world because almost all information is at the fingertips and presented to this generation (Szymkowiak et al., 2021). With the existence of ethical values that are controlling in building a positive digital culture, maintaining openness and transparency in interactions in the digital world. Speaking honestly and openly about opinions and experiences can help build trust and reduce misinterpretations or misunderstandings. Maintaining an open and tolerant attitude towards differences of opinion, culture, and background can help reduce conflict and create a more harmonious environment (Interview, LAA, 2023).

The importance of following the ethics of using technology in improving the religious character of students, especially in terms of openness, privacy, justice, security, and responsibility. Because technology can have a positive or negative impact on their lives, it is essential for students to adhere to the ethics of using technology so that they can use it wisely and responsibly. Thus, students can strengthen their religious character and become better people through ethical and valuable technology. Because the era of globalization offers ease and speed in changing humans, technology is used and developed to accelerate the achievement of every goal humans have set. As a result, material and psychological needs can be forgotten (Delahunty & Kimbell, 2021).

The very high dependence on the internet makes the younger generation prefer to use it as a source of information and communication because it promises ease of use and more incredible speed of access (Soanes-White, 2022). In facing the era of globalization, it takes a strong personality and high motivation to achieve one's goals. Students, who are still in rapid physical and mental development, are easily influenced by various positive and negative things (Poddubnaya et al., 2021);(Ozer & Schwartz,

2022);(Wardani et al., 2022). Therefore, digital literacy is critical and needs to be included in the curriculum as a subject that studies technology and digital media use wisely and safely.

In this digital era, the need to understand technology and digital media is increasingly important because its use is evenly distributed in all aspects of life, including education. Lessons on digital literacy can help students understand how technology works, how to use technology appropriately and correctly, and how to protect their online privacy and security (Interview, ENN, 2023).

Students must learn to use technology wisely and responsibly to avoid adverse effects on themselves and others. Because many students today spend a long time in front of a computer screen or smartphone and rely on the internet as a source of information and communication. High dependence on technology can affect the way of thinking, behaviour, and Andson's religious character. Therefore, students need to learn the ethics of using technology, such as openness, privacy, fairness, security, and responsibility for the use of technology.

Lessons on digital literacy and the wise and responsible use of technology should be incorporated into the curriculum to help students develop the ability to use technology and digital media effectively and safely. Cultivating digital literacy is very important in today's digital era. Digital literacy is not only learning how to use technology but also how to use technology wisely, safely, and responsibly. Students should understand the risks associated with technology use, such as loss of privacy, misuse of data, and psychological impacts.

In addition, students also need to understand how to use technology to improve their religious character, such as by accessing educational resources and information that can help them deepen their religious understanding and increase their faith. Thus, fostering digital literacy can help students become more knowledgeable, wise, and responsible individuals in the use of technology.

Strengthening Religious Character to Minimize Technology Misuse

Today's advances in information and communication technology offer speed and ease of access for all groups. In this industrial revolution era, cooperation between the world of education and communication technology must be increased to facilitate access to information in the learning process in order to answer the challenges of today's modern world (Erviana et al., 2022);(A'mar & Eleyan, 2022). Educators are also faced with the behaviour of students who tend to like to surf in cyberspace through Android devices, applications, or mobile phones. So today's college students are more likely to read on mobile phones than books, search for information independently without checking first, and make friends through social networking accounts. Therefore, students must use information technology wisely, including entertainment, enriching knowledge, and conducting research (Vahedi et al., 2021);(Mota & Cilento, 2020). Thus, religious education should be an integral part of the educational process from an early age, at school and at home. In this process, it is necessary to emphasize the correct and comprehensive understanding of religious teachings. This can help a person to understand religious values better and develop a stronger religious character.

Here are some things that can strengthen the religious character of students: (1) Strengthening religious education: One way to strengthen religious character in

students is to strengthen religious education. Good religious education can help students understand religious values and develop a solid religious character. (2) Teaching the ethics of using technology: In addition to religious education, students also need to be taught about the ethics of using technology. They must understand how to use technology wisely, safely, and responsibly. (3) Encourage digital literacy: Students must also be encouraged to improve their digital literacy. Digital literacy is not only learning how to use technology but also how to use technology wisely, safely, and responsibly. (4) Using technology as a means of support: Technology can be used to improve students' religious character, such as by accessing information sources and learning materials related to religion. (5) Building a religious community: Students can also strengthen their religious character through a religious community built through an online platform. Such communities can provide support, inspiration, and a deeper understanding of religious values.

Students can minimize the misuse of technology and strengthen their religious character. In addition, they can also utilize technology wisely and responsibly. Building religious communities through online platforms can also be an effective alternative in increasing engagement, avoiding misuse of technology, and facilitating interaction between community members. Here are some things to consider in building a religious community through online platforms:

First, choose the right platform: Many online platforms can be used to build religious communities, such as social media, chat groups, online forums, or specialized applications. Choose the platform that best suits your goals and community characteristics. *Second*, metapise clear goals and rules: Before you begin, set clear goals and rules for the community. Such goals and rules should include the mission and values of the religion adhered to, as well as ethics and norms of behaviour in online interactions. *Third*, facilitate interaction and participation: Facilitation of interaction and participation between community members is essential to build togetherness and familiarity. Create active forums or discussion groups, hold online events or activities that all members can participate in, and provide opportunities to share experiences and inspiring stories. *Fourth*, provide education and relevant information: Online platforms can effectively provide relevant education and information to community members. Provide informative and educational content on religious values, religion-related activities and events, or news and information related to developing religious issues. *Fifth*, maintain privacy and security: Pay attention to the privacy and security of community members using online platforms. Establish rules and practices that safeguard the privacy and security of community members' personal information, and use adequate security technology to protect sensitive data and information.

From the analysis above, it can be seen that the importance of ethics in controlling the use of information and communication technology, as well as spiritual values that can strengthen religious character, both play a role in strengthening and preventing the misuse of information and communication technology. Individuals who understand religion as a belief in offering themselves to the creator have limits that must be followed, derived from supernatural forces, as instructions in carrying out activities commanded and avoiding things forbidden by Allah Swt. (Niemiec et al., 2020);(Patel & Goyena, 2019);(Mahfud et al., 2021) explain that religious character values reflect the dimensions of human relationships with God, humans, and the universe. These values include love of peace, tolerance, respect for differences between religions and

beliefs, determination, self-confidence, cooperation between followers of religions and beliefs, fighting harassment and violence, friendship, sincerity, not imposing will, loving the environment, and protecting children and displaced persons. Therefore, the value of religious character leads to human values that always do good that Allah Almighty recognizes. Moreover, maintain good relations with fellow humans and the universe.
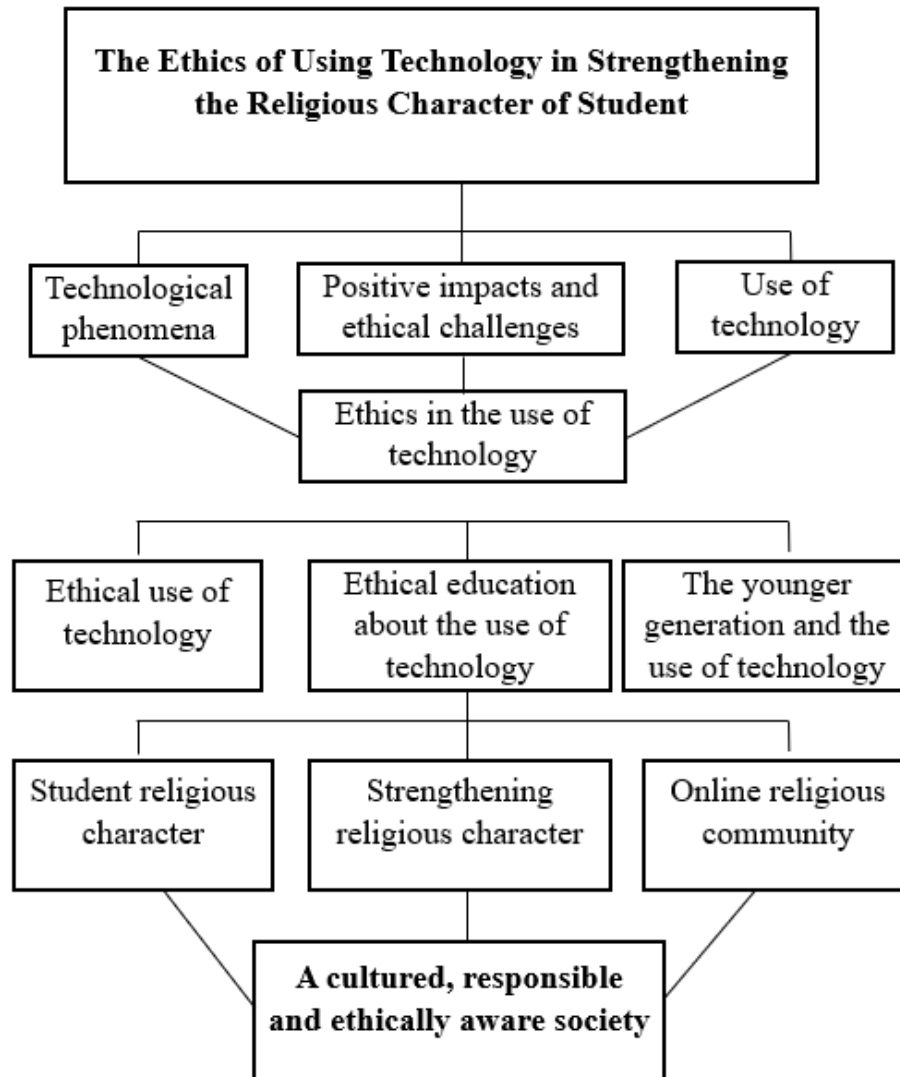
Diagram 2. *Diagram of discussing the ethics of technology use*

IV. CONCLUSION

The use of technology brings positive impacts and ethical challenges. Technological phenomena, such as dependence on mobile devices, social media, e-commerce, etc., affect society. Ethics in using technology refers to norms of moral behaviour that must be upheld to avoid harming others. Studies show that religious beliefs influence students' religious character, and character strengthening can be done through religious education and the wise use of technology. Ethical use of technology helps students avoid abuse and strengthens religious character. Building a religious community through online platforms is also effective for increasing engagement and

499   *Al-Hayat: Journal of Islamic Education (AJIE)*
e-ISSN: 2599-3046 (online) | *Volume 7, Issue 2* | *July - December 2023*
p-ISSN: 2657-1781 (print)

avoiding the misuse of technology. Ethical education about the use of technology must be instilled from an early age for the younger generation to use technology responsibly. Strengthening the religious character of students must be an integral part of education. Integrating ethics and strengthening religious character will create a society that is responsible, cultured, and has a solid ethical awareness in the digital era.

V. REFERENCES

[1] A'mar, F., & Eleyan, D. (2022). Effect of principal s technology leadership on teacher s technology integration. *International Journal of Instruction*, *15*(1), 781–798. https://doi.org/10.29333/iji.2022.15145a

[2] Alamgir, M., Quaddus, M., Warren, M., Akter, S., & Pappas, I. (2022). International Journal of Information Management Are you a cyberbully on social media ? Exploring the personality traits using a fuzzy-set configurational approach. *International Journal of Information Management*, *66*(June), 102537. https://doi.org/10.1016/j.ijinfomgt.2022.102537

[3] Archer, A. (2021). The Ethics of Love. *Journal of Ethics*, *25*(4), 423–427. https://doi.org/10.1007/s10892-021-09387-x

[4] Arif, A. M., & Elya, E. (2021). Character Education Based on Religius Values: The Case of Elementary School in Palu, Indonesia. *International Journal of Education, Learning and Development*, *9*(8), 54–70.

[5] Arwen, D., & Puspita, D. R. (2020). The Role of Technology on Students' Character Education. *Journal of Physics: Conference Series*, *1477*(4). https://doi.org/10.1088/1742-6596/1477/4/042070

[6] Aydin, D. (2018). Relationship Between the Spiritual Intelligence and Self-Regulation Skills of Education Faculty Students. *Journal of Education and Training Studies*, *6*(12), 227. https://doi.org/10.11114/jets.v6i12.3481

[7] Balakrishnan, B., Tochinai, F., Kanemitsu, H., & Altalbe, A. (2021). Engineering ethics education from the cultural and religious perspectives: a study among Malaysian undergraduates. *European Journal of Engineering Education*, *46*(5), 707–717. https://doi.org/10.1080/03043797.2021.1881449

[8] Beer, P., & Mulder, R. H. (2020). The effects of technological developments on work and their implications for continuous vocational education and training: A systematic review. *Frontiers in Psychology*, *11*(May). https://doi.org/10.3389/fpsyg.2020.00918

[9] Chien, F., Ajaz, T., Andlib, Z., Yin, K., Ahmad, P., & Sharif, A. (2021). The role of technology innovation , renewable energy and globalization in reducing environmental degradation in Pakistan : A step towards sustainable environment. *Renewable Energy*, *177*, 308–317. https://doi.org/10.1016/j.renene.2021.05.101

[10] Creswell, J. W. (2013). *Qualitative Inquiry & Research Design: Choosing Among Five Appoaches*. SAGE Publication.

[11] Critchfield, J. B. (2021). Practice Rooms and Practice Fields: Connections in Character Development. *Music Educators Journal*, *107*(4), 35–41.

https://doi.org/10.1177/00274321211012447

[12] David, I., & Iliescu, D. (2022). The influence of religiosity and meaning making on work outcomes: A path analysis. *Current Psychology*, *41*(9), 6196–6209. https://doi.org/10.1007/s12144-020-01119-y

[13] De Soto, W., Tajalli, H., Pino, N. W., & Smith, C. L. (2018). The effect of college students' religious involvement on their academic ethic. *Religion and Education*, *45*(2), 190–207. https://doi.org/10.1080/15507394.2018.1425077

[14] Delahunty, T., & Kimbell, R. (2021). (Re)framing a philosophical and epistemological framework for teaching and learning in STEM: Emerging pedagogies for complexity. *British Educational Research Journal*, *47*(3), 742–769. https://doi.org/10.1002/berj.3706

[15] Dhiman, D. B. (2023). Ethical issues and challenges in social media: A current scenario. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.4406610

[16] Dwivedi, Y. K., Ismagilova, E., Hughes, D. L., Carlson, J., Filieri, R., Jacobson, J., Jain, V., Karjaluoto, H., Kefi, H., Krishen, A. S., Kumar, V., Rahman, M. M., Raman, R., Rauschnabel, P. A., Rowley, J., Salo, J., Tran, G. A., & Wang, Y. (2021). International Journal of Information Management Setting the future of digital and social media marketing research : Perspectives and research propositions. *International Journal of Information Management*, *59*(May 2020), 102168. https://doi.org/10.1016/j.ijinfomgt.2020.102168

[17] Erviana, V. Y., Sintawati, M., Bhattacharyya, E., Habil, H., & Fatmawati, L. (2022). The effect of Project-Based Learning on Technological Pedagogical Content Knowledge among Elementary School Pre-Service Teacher. *Pegem Egitim ve Ogretim Dergisi*, *12*(2), 151–156. https://doi.org/10.47750/pegegog.12.02.15

[18] Estrada, C. A. M., Lomboy, M. F. T. C., Gregorio, E. R., Amalia, E., Leynes, C. R., Quizon, R. R., & Kobayashi, J. (2019). Religious education can contribute to adolescent mental health in school settings. *International Journal of Mental Health Systems*, *13*(1), 1–6. https://doi.org/10.1186/s13033-019-0286-7

[19] Fletcher, J. R. (2021). Unethical governance: capacity legislation and the exclusion of people diagnosed with dementias from research. *Research Ethics*, *17*(3), 298–308. https://doi.org/10.1177/1747016120982023

[20] Furqon, A., & Hanif, M. (2022). Strengthening Character Education Through Islamic Religious Education: A Case in Indonesian Context. *Angewandte Chemie International Edition*, *6*(11), 951–952. https://doi.org/https://doi.org/10.28918/tadibia.v2i2.6261

[21] Gajek, E. (2020). Crowdsourcing in language learning as a continuation of CALL in varied technological, social, and ethical contexts. *CALL for Widening Participation: Short Papers from EUROCALL 2020*, *December 2020*, 75–80. https://doi.org/10.14705/rpnet.2020.48.1168

[22] Giumetti, G. W., & Kowalski, R. M. (2022). Cyberbullying via social media and well-being. *Current Opinion in Psychology*, *45*, 101314. https://doi.org/10.1016/j.copsyc.2022.101314

501   *Al-Hayat: Journal of Islamic Education (AJIE)*
e-ISSN: 2599-3046 (online) | Volume 7, Issue 2 | July - December 2023
p-ISSN: 2657-1781 (print)

[23] Hailegebreal, S., Sedi, T. T., Belete, S., Mengistu, K., Getachew, A., Bedada, D., Molla, M., Shibiru, T., & Mengiste, S. A. (2022). Utilization of information and communication technology (ICT) among undergraduate health science students: a cross-sectional study. *BMC Medical Education*, *22*(1), 1–7. https://doi.org/10.1186/s12909-022-03296-9

[24] Haleem, A., Javaid, M., Qadri, M. A., & Suman, R. (2022). Understanding the Role of Digital Technologies in Education: A Review. *Sustainable Operations and Computers*, *3*, 275–285. https://doi.org/https://doi.org/10.1016/j.susoc.2022.05.004

[25] Hayati, F. N., Suyatno, S., & Susatya, E. (2020). Strengthening of Religious Character Education Based on School Culture in the Indonesian Secondary School. *The European Educational Researcher*, *3*(3), 87–100. https://doi.org/10.31757/euer.331

[26] Hayward, G. M., & Pearce, L. D. (2021). The Sociology of Adolescent Religious and Spiritual Development. *Adolescent Research Review*, *6*(3), 265–276. https://doi.org/10.1007/s40894-021-00157-2

[27] Hwang, J., Jeong, Y., Park, J. M., Lee, K. H., Hong, J. W., & Choi, J. (2015). Biomimetics: Forecasting the future of science, engineering, and medicine. *International Journal of Nanomedicine*, *10*, 5701–5713. https://doi.org/10.2147/IJN.S83642

[28] Igras, S., Kohli, A., Bukuluki, P., Cislaghi, B., Khan, S., & Tier, C. (2021). Bringing ethical thinking to social change initiatives: Why it matters. *Global Public Health*, *16*(6), 882–894. https://doi.org/10.1080/17441692.2020.1820550

[29] Jalal, H. (2022). *Influence of Religious Education in developing moral values of students in high secondary school education*. *August*. https://doi.org/10.13140/RG.2.2.26539.31520

[30] Jasiah, Rakhman, A., Arifin, A., Safitri, R., Perdana, I., & Khaidir Abdul Wahab, M. (2021). Application of Learning Using Online Media during the New Normal. *Journal of Physics: Conference Series*, *1783*(1). https://doi.org/10.1088/1742-6596/1783/1/012124

[31] King, P. E., Hardy, S. A., & Noe, S. (2021). Developmental Perspectives on Adolescent Religious and Spiritual Development. *Adolescent Research Review*, *6*(3), 253–264. https://doi.org/10.1007/s40894-021-00159-0

[32] Klenk, M. (2021). How Do Technological Artefacts Embody Moral Values? *Philosophy and Technology*, *34*(3), 525–544. https://doi.org/10.1007/s13347-020-00401-y

[33] Kolb, J. (2023). Muslim diversity, religious formation and Islamic religious education. Everyday practical insights into Muslim parents' concepts of religious education in Austria. *British Journal of Religious Education*, *45*(2), 172–185. https://doi.org/10.1080/01416200.2021.1911787

[34] Kreismann, D., & Talaulicar, T. (2021). Business Ethics Training in Human Resource Development: A Literature Review. In *Human Resource Development Review* (Vol. 20, Issue 1). https://doi.org/10.1177/1534484320983533

[35] Lange, C., & Costley, J. (2020). Improving online video lectures: learning challenges created by media. *International Journal of Educational Technology in Higher Education*, *17*(1). https://doi.org/10.1186/s41239-020-00190-6

[36] Lickona, T. (2012). *Educating for Character*. Bumi Aksara.

[37] Lupton, D. (2021). 'Honestly no, I've never looked at it': teachers' understandings and practices related to students' personal data in digitised health and physical education. *Learning, Media and Technology*, *46*(3), 281–293. https://doi.org/10.1080/17439884.2021.1896541

[38] Magolda, M. B. B. (2020). Developmental Complexity: A Foundation for Character. *Journal of College and Character*, *21*(1), 14–20. https://doi.org/10.1080/2194587x.2019.1696830

[39] Mahfud, C., Saifulloh, M., & ... (2021). Digitizing the Values of Religious Character, Pancasila and Citizenship Education Through YouTube. *Modeling*, *8*(September 2021), 170–177. https://doi.org/10.36835/modeling.v8i2.907

[40] Maxwell, B., Boon, H., Tanchuk, N., & Rauwerda, B. (2021). Adaptation and validation of a test of ethical sensitivity in teaching. *Journal of Moral Education*, *50*(3), 267–292. https://doi.org/10.1080/03057240.2020.1781070

[41] Mayerson, N. H. (2020). The Character Strengths Response: An Urgent Call to Action. *Frontiers in Psychology*, *11*(August), 1–12. https://doi.org/10.3389/fpsyg.2020.02106

[42] Mormina, M. (2019). Science, Technology and Innovation as Social Goods for Development: Rethinking Research Capacity Building from Sen's Capabilities Approach. *Science and Engineering Ethics*, *25*(3), 671–692. https://doi.org/10.1007/s11948-018-0037-1

[43] Mota, F. P. B., & Cilento, I. (2020). Competence for internet use: Integrating knowledge, skills, and attitudes. *Computers and Education Open*, *1*(August), 100015. https://doi.org/10.1016/j.caeo.2020.100015

[44] Moulin-Stożek, D. (2020). Spiritual Development as an Educational Goal. *ECNU Review of Education*, *3*(3), 504–518. https://doi.org/10.1177/2096531120935128

[45] Niemiec, R. M., Russo-netzer, P., & Pargament, K. I. (2020). *The decoding of the human spirit : A synergy of spirituality and character strengths toward wholeness*. *11*(September). https://doi.org/10.3389/fpsyg.2020.02040

[46] Okougbo, P. O., Okike, E. N., & Alao, A. (2021). Accounting ethics education and the ethical awareness of undergraduates: an experimental study. *Accounting Education*, *30*(3), 258–276. https://doi.org/10.1080/09639284.2021.1888135

[47] Olsson, T., & Jarusriboonchai, P. (2020). *Technologies for enhancing collocated social interaction : Review of design solutions and approaches*. *29*, 29–83. https://doi.org/10.1007/s10606-019-09345-0

[48] Ozer, S., & Schwartz, S. J. (2022). Identity development in the era of globalization: Globalization-based acculturation and personal identity development among Danish emerging adults. *European Journal of Developmental Psychology*, *19*(1), 22–42. https://doi.org/10.1080/17405629.2020.1858405

[49] Patel, & Goyena, R. (2019). Religion and the development of character:

503 **Al-Hayat: Journal of Islamic Education (AJIE)**
e-ISSN: 2599-3046 (online) | Volume 7, Issue 2 | July - December 2023
p-ISSN: 2657-1781 (print)

Personality changes before and after religious conversion and deconversion 23. *Journal of Chemical Information and Modeling*, *15*(2), 9–25. https://doi.org/https://doi.org/10.1177/1948550620942381 1

[50] Peters, M. A., Jackson, L., Hung, R., Mika, C., Buchanan, R. A., Tesar, M., Besley, T., Hood, N., Sturm, S., Farrell, B., Madjar, A., & Webb, T. (2022). The case for academic plagiarism education: A PESA Executive collective writing project. *Educational Philosophy and Theory*, *54*(9), 1307–1323. https://doi.org/10.1080/00131857.2021.1897574

[51] Poddubnaya, T. N., Zadneprovskaya, E. L., Voevodina, S. S., Ilyinova, N. A., Khatit, F. R., & Panina, E. A. (2021). Distance learning experience in the context of globalization of education. *Propósitos y Representaciones*, *9*(SPE2). https://doi.org/10.20511/pyr2021.v9nspe2.985

[52] Purwanto, E., Yana, K. El, Oktarina, S., & Zainal, A. G. (2021). The Role of Islamic Boarding Schools and Character Building of Santri through Increasing Social Capital and Human Capital for Social Changes in the Community. *International Journal of Progressive Sciences and Technologies (IJPSAT*, *26*(1), 625–632.

[53] Roksoliana Zozuliak-Sluchyk. (2019). Pedagogical system for forming professional ethics in future social workers at universities. *Науковий Вісник Інституту Професійно-Технічної Освіти Напн України. Професійна Педагогіка*, *5752*(18), 37–41. https://doi.org/10.32835/2223-5752.2019.18.37-41

[54] Roztocki, N., Soja, P., Weistroffer, H. R., & Soja, P. (2019). *Information technology for development the role of information and communication technologies in socioeconomic development : towards a multi-dimensional framework*. *1102*, 170–183. https://doi.org/10.1080/02681102.2019.1596654

[55] Sauri, S., Sanusi, A., Saleh, N., & Khalid, S. M. (2022). Strengthening Student Character Through Internalization of Religious Values in School. *Al-Iltizam: Jurnal Pendidikan Agama Islam*, *7*(2), 30. https://doi.org/10.33477/alt.v7i2.3369

[56] Schnitker, S. A., Medenwaldt, J. M., & Williams, E. G. (2021). Religiosity in adolescence. *Current Opinion in Psychology*, *40*, 155–159. https://doi.org/10.1016/j.copsyc.2020.09.012

[57] Setiartin, R. T., & Casim. (2021). Revitalization of oral traditions in Tasikmalaya district as a learning media to plant character education values and multicultural insights of students. *Journal of Language and Linguistic Studies*, *17*(3), 1379–1391. https://doi.org/10.52462/jlls.99

[58] Shankleman, M., Hammond, L., & Jones, F. W. (2021). Adolescent Social Media Use and Well-Being: A Systematic Review and Thematic Meta-synthesis. *Adolescent Research Review*, *6*(4), 471–492. https://doi.org/10.1007/s40894-021-00154-5

[59] Skrzypińska, K. (2021). Does spiritual intelligence (SI) exist? A theoretical investigation of a tool useful for finding the meaning of life. *Journal of Religion and Health*, *60*(1), 500–516. https://doi.org/10.1007/s10943-020-01005-8

[60] Soanes-White, T. (2022). Defining and exploring broadband connections and

education solutions in canada's north. *Canadian Journal of Learning and Technology*, *48*(4). https://doi.org/10.21432/cjlt28262

[61] Steele, P. B., Burleigh, C., & Young, E. A. (2020). Considering educators' perceptions of ethics and safety in virtual learning environments (VLEs). *Journal of Educational Research and Practice*, *10*(1), 404–418. https://doi.org/10.5590/jerap.2020.10.1.26

[62] Subaidi. (2020). Strengthening character education in Indonesia: Implementing values from moderate Islam and the Pancasila. *Journal of Social Studies Education Research*, *11*(2), 120–132.

[63] Sulaiman, R., Toulson, P., Brougham, D., Lempp, F., & Haar, J. (2022). The role of religiosity in ethical decision-making: A study on islam and the malaysian workplace. *Journal of Business Ethics*, *179*(1), 297–313. https://doi.org/10.1007/s10551-021-04836-x

[64] Suriadi, & Supriyatno, T. (2020). Implementation of religious character education through school culture transformation. *International Journal of Advanced Science and Technology*, *29*(8), 2749–2755.

[65] Szymkowiak, A., Melović, B., Dabić, M., Jeganathan, K., & Kundi, G. S. (2021). Information technology and Gen Z: The role of teachers, the internet, and technology in the education of young people. *Technology in Society*, *65*(January). https://doi.org/10.1016/j.techsoc.2021.101565

[66] Torralba, J., Oviedo, L., & Canteras, M. (2021). Religious coping in adolescents: new evidence and relevance. *Humanities and Social Sciences Communications*, *8*(1), 1–9. https://doi.org/10.1057/s41599-021-00797-8

[67] Vahedi, Z., Zannella, L., & Want, S. C. (2021). Students' use of information and communication technologies in the classroom: Uses, restriction, and integration. *Active Learning in Higher Education*, *22*(3), 215–228. https://doi.org/10.1177/1469787419861926

[68] Varkey, B. (2021). Principles of clinical ethics and their application to practice. *Medical Principles and Practice*, *30*(1), 17–28. https://doi.org/10.1159/000509119

[69] Vedechkina, M., & Borgonovi, F. (2021). A Review of Evidence on the Role of Digital Technology in Shaping Attention and Cognitive Control in. *Frontiers in Psycology*, *12*(February), 1–22. https://doi.org/10.3389/fpsyg.2021.611155

[70] Wardani, E. Y., Al Qossam, M. I., & Fitriono, R. A. (2022). The Role of Pancasila in the Era of Globalization. *AURELIA: Jurnal Penelitian Dan Pengabdian Masyarakat Indonesia*, *1*(2), 282–286. https://doi.org/10.57235/aurelia.v1i2.163

[71] Wolff, J. (2021). How Is technology changing the world, and How Should the World Change Technology? *Global Perspectives*, *2*(1), 1–5. https://doi.org/10.1525/gp.2021.27353

[72] Yafiz, M., Al-Muttar, M. Y. O., Shihab, S. A., Aini, Q., Zainal, A. G., Baker El-Ebiary, Y. A., Hussein, R. A., Allahibi, T. R., & Dwijendra, N. K. A. (2022). Islamic religiosity and job satisfaction among Muslim teachers in Malaysia. *HTS*

Teologiese Studies / Theological Studies, *78*(4). https://doi.org/10.4102/hts.v78i4.7569

[73] Yang, S., & Wang, W. (2022). The Role of Academic Resilience, Motivational Intensity and Their Relationship in EFL Learners' Academic Achievement. *Frontiers in Psychology*, *12*(January), 1–8. https://doi.org/10.3389/fpsyg.2021.823537

[74] Yılmaz, Y., & Çelebi, C. (2022). Views of information technologies teachers on the effects of values education on informatics ethics. *International Online Journal of Education and Teaching (IOJET)*, *2022*(1), 506–530.

[75] Zhang, K., & Aslan, A. B. (2021). AI technologies for education: Recent research & future directions. *Computers and Education: Artificial Intelligence*, *2*, 100025. https://doi.org/10.1016/j.caeai.2021.100025

[76] Zhu, C., Huang, S., Evans, R., & Zhang, W. (2021). Cyberbullying Among Adolescents and Children: A Comprehensive Review of the Global Situation, Risk Factors, and Preventive Measures. *Frontiers in Public Health*, *9*(March), 1–12. https://doi.org/10.3389/fpubh.2021.634909