

## DIGITAL CITIZENSHIP DEVELOPMENT MODEL IN CITIZENSHIP EDUCATION LEARNING

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**Abstract.** This research aims to find a model for the development of digital citizenship in PKn learning. This writing method uses a descriptive-analytical method, describing the things that are analyzed and discussed comprehensively and integrally. The techniques used to collect data were carried out through observation, interviews and literature studies. The results of the study show that digital citizenship is the knowledge and skills used to use technology appropriately in the digital world, manage existing risks, and take advantage of the opportunities offered by the digital world appropriately and wisely. This research concludes that there are nine elements that together form digital citizenship, namely digital access, *digital commerce*, digital communication, *digital literacy*, digital ethics, digital law, rights and obligations of digital citizens, digital health and fitness, and digital security.

**Keywords:** Digital Citizenship; PPKn Learning

### I. INTRODUCTION

Scientific advances continue to develop massively, this is marked by the creation of information and communication technology (digital) (Lestari, 2018). Human life today is inseparable from the digital world (information technology). From time to time, technology continues to produce interesting findings ranging from smart phones, computers, smart applications and others (Danuri, 2019; Yustanti & Novita, 2019). The development of digital technology has become a trend for human life from time to time. With these developments, several countries and even almost all over the world have launched the industrial revolution 4.0 where almost all aspects of human life utilize digital technology (Aisyah, 2021; Fauzan & Fitria, 2018; Fitriani & Aziz, 2019; Khasanah & Herina, 2019; Syamsuar & Reflianto, 2019). The existence of digitalization has changed the way humans work to be more effective and efficient, which was previously done conventionally now switching to (digital) technology such as e-banking, e-learning, ecommerce, e-government and so on. Such rapid digital development has brought its own consequences, both positive and negative impacts on humans. The positive impact of digitalization is to help humans complete work from all areas of life quickly, facilitate the dissemination of information, facilitate communication between individuals and even across countries, and provide easy access to find information (Danuri, 2019; Kusuma, 2019). Meanwhile, the negative impact of digitalization is the emergence of anti-social behavior, the occurrence of cyber bullying, the spread of fake news (hoax), the emergence of pornography, cyber sabotage and extortion, hate speech, the emergence of cybercrime such as hacking (breaking through other people's computer programs), carding (misuse of other people's identities) and cracking (Antoni, 2017; Astuti, 2017; Kristiyono, 2015; Kusuma, 2019; Widagdo, 2017). In order to reduce the negative impact caused by digital

technology, digital citizenship is needed. The concept of digital citizenship is developing along with the rapid development of digital technology in people's lives. Digital citizenship is a way to create smart and good citizens in using digital technology. Digital citizenship has a very important role in the world of digitalization. The existence of digital citizenship aims to shape responsible and wise public behavior or attitudes in using technology, form communication ethics in cyberspace and anticipate the misuse of technology for personal or group interests (Pradana, 2018). There are several important functions of digital citizenship, namely (1) assisting in the process of interacting both domestically and cross-country in a safe, comfortable and conducive manner, (2) ensuring the protection of law, security and the rights and obligations of citizens in the digital world, (3) increasing insight and understanding for citizens in using digital technology wisely, (4) avoiding cybercrime, the spread of hoax news, pornography and others, (5) fostering an attitude of responsibility in the media (Nehe, 2021). Related to the concept of digital citizenship, it is in line with the learning of PKn (Civic Education). Civic education learning is a general education provided for citizens to build character and attitudes in accordance with the nation's personality values (Suardi, et al.2023). Civic education learning has a very important purpose and role, namely preparing intelligent, responsible and civilized citizens (F. S. Pahlevi, 2017). Thus, there are similarities between digital citizenship and civic education learning, namely forming intelligent and responsible citizens (Pradana, 2018).

When looking at the development of today's sophisticated era and the impact of digitalization on all aspects of life, it is necessary to adjust digital technology in the implementation of the PKn learning process. This can be done in ways such as (1) the use of online-based learning media (google classroom, whatsapp group and others), (2) the learning methods and strategies used, (3)

teaching materials and learning resources (google book( 4) other administrative purposes such as databases, letters, learning outcomes and others (Fitriani & Aziz, 2019; Lestari, 2018).

The adaptation of the digital world in PKn learning is one way to utilize digital technology optimally as well as an effort to face the challenges of increasingly massive digital development (Liansari & Nuroh, 2018). That adaptation also directly forms digital citizenship. The integration of digital citizenship in PKn (civic education) learning in vocational schools is an interaction process between teachers and students who wisely use digital technology to achieve learning goals (Nehe, 2021). The interaction that occurs between teachers and students through digital technology in teaching and learning activities is indirectly one of the efforts to educate students to be able to use digital technology intelligently and wisely (Rumiati, et.al.; 2022). The use of the digital world in civic education at vocational schools is expected to prepare students as responsible, intelligent and civilized citizens in using digital technology. In line with the above thoughts, this article seeks to describe the integration of digital citizenship in PKn learning to foster internet ethics among students. Good and intelligent behavior of citizens in the digital world will be seen when operating in the online community, so that it is the main key for citizens to be able to make a positive contribution in the digital world. The behavior of citizens in a good and intelligent digital world is associated with digital citizenship or digital citizenship.

The transformation of the digital world in education will occur naturally to be able to increase efficiency and effectiveness in everything (Amarulloh, Surahman, & Meylani, 2019). This can be seen from the availability of mass media to obtain and publish the latest learning methods, the learning process also does not always have to be face-to-face, besides that the facilities for the purpose of education that are needed can be fulfilled properly and learning can be made as interesting as possible so that it makes it easier to explain a material that is still complex or abstract (Suripto, Fatmasari, & Purwantiningsih, 2010). However, digitalization also has an impact that leads to negative things in the world of education, namely: the transfer of the role of teachers which is replaced by learning applications that have emerged a lot, the exposure of students to negative content from the internet that makes students addicted to it, the emergence of cybercrime, can give rise to individualism and apathy among students (Sudibyo, 2011).

Education certainly has an important role in teaching young citizens who are familiar with the digital world (Pramanda, Muchtarom, & Hartanto, 2018). This is certainly in line with a study from Kominfo which stated that at least 30 million children or teenagers in Indonesia have become users of the internet and are familiar with media in the digital world (Kominfo, 2015). These internet users must of course obtain stimulants and wise encouragement to improve the quality of human resources, especially in minimizing the negative impact of internet abuse with an understanding of internet ethics (Triastuti, 2017). Education is expected to make a person able to contribute and enter the life of the digital world community, especially related to digital world communication, digital world literacy and digital world ethics. Of course, teachers are also expected to be skilled in using and mastering the world of technology and directing it to positive things.

Fostering the character of digital citizenship is a subject

task in schools, one of which is PKn because it is a subject that concentrates on forming skilled, intelligent and characterful citizens and oriented to carry out rights and obligations in accordance with those in Pancasila and the 1945 Constitution (Pramanda, Muchtarom, & Hartanto, 2018). So that the purpose of Citizenship Education can form the character of citizens who have full understanding and awareness of what rights they already have and what obligations should be done. PKn is one of the required subjects in primary education, secondary education and higher education in accordance with the regulations of the National Education System (Winataputra, 2016). Therefore, this subject cannot be underestimated and requires efforts to be able to develop PKn, especially the use of technology to form digital citizenship.

Of course, with the ability to digital literacy which is an element of digital citizenship, it leads to knowledge and skills to be one of the fulfillment of Smart and Good Citizen or learning intelligence in PKn learning. This proves the importance of ethics, where digital ethics need to be taught, especially which are good and bad in the use of technology in PKn learning (Pramanda, Muchtarom, & Hartanto, 2018). Understanding digital citizenship is expected to be able to lead students to positive things, so that the mission of fulfilling Good Citizen and Smart Citizen can be realized according to 21st century PKn learning by focusing on efforts to develop learning intelligence (Pramanda, Muchtarom, & Hartanto, 2018). The convenience offered by this technological advancement has often been abused for improper things. As has happened a lot lately, namely with the expansion of the flow of information that is easily accessible today through the internet, in fact, the information circulating through social media sometimes contains hate speech, fake news, and slander. The circulation of hoaxes, slander, and even blasphemy on social media shows that they are immature in the use of the internet. There are also not a few cases of technology misuse involving students or students such as what happened at the riot demonstration against the Job Creation Bill some time ago, the police arrested 7 admins or social media owners who became driving actors by inciting the period to commit anarchic actions during the demonstration on Monday, October 19, 2020, the suspects in the case are all still students (Source: Liputan6.com, October 22, 2020 edition, at 12.00 WIB).

Another example of a case is a 17-year-old high school student hacking the Instagram account of VB who is an artist in the capital city, the suspect threatened to return the account if VB gave him a sum of money. Next is a pornography case involving a student where the suspect disseminated nude photos of his female friend who was also still a student on a pornographic site and the victim was expelled from school (Source: Detik.com, June 03, 2016 edition, at 10.14 WIB).

The circulation of hoax news, slander, hate speech, and other misuse of technology is increasingly rampant so that the freedom offered by technology through social media that exists today is sometimes used to be ungood or undesirable. The internet is a technology that is neutral, free, open and unregulated, and makes everything connected, but no one is responsible, or in other words it is analogous that the internet is a democracy, but without a constitution (Scobey, 2001:16). Incidents like this are sometimes imitated by school-age people, which is clearly very bad.

There are still many cases of misuse of technology or social media that occur, especially those carried out by school-age children, therefore it is necessary to provide knowledge about digital citizenship to students in schools as a set of characteristics

of digital citizens. Digital citizenship Education is teaching and learning strategies to prepare students for life and work in the 21st century, by helping to provide understanding of how technology should be used, and facilitating students in implementing digital citizenship with the aim of making students knowledgeable and tech-savvy (Ribble, 2004:9). Mardianto (2018:12) stated that the purpose of Digital Citizenship Education is to develop the ability of students who are actively involved in their online world to be able to consume online information more critically, and responsibly by actively involving them in more positive online social and political discussions .

With the advancement of technology that exists today, knowledge to be a good digital citizen is very necessary, so that students can take positive things and discard negative things. Therefore, in entering society in the digital era, knowledge and skills are needed, especially about ethics that must be possessed by every digital citizen. This understanding of digital ethics is expected to be able to make digital citizens in a more positive direction so that good digital citizens are realized. Based on the description above, it can be drawn that the digital era brings us into a new era of Character Education, which is aimed directly at the opportunities and challenges in digital lifestyle life. Therefore, one of the alternative solutions is the application of Digital Citizenship Education to students as an effort to form good digital citizens through collaboration with the existing learning system in schools.

## **I. RESEARCH METHOD**

This writing method uses a descriptive-analytical method, describing the things that are analyzed and discussed comprehensively and integrally, providing an explanation of problems related to the development of digital citizenship in PKn learning as an alternative to solutions in PKn learning innovations. Therefore, the approach in this study uses a qualitative approach, a research approach that has the purpose of describing and giving an overview of certain matters. The techniques used to collect data were carried out through observation, interviews and literature studies. The discussion of the research was carried out through descriptive analysis supported by secondary data and literature studies (Pudjiastuti:2019). This research is in the form of a descriptive study that prioritizes research by investigating phenomena and their contexts are interrelated and utilizing a lot of evidence or information to search for data (Pudjiastuti & Rumiati: 2019).

## **II. RESULT AND DISCUSSION**

### **1. The Role of Civic Education**

PKn (Civic Education) is a learning that arouses curiosity and trust in social norms that govern personal relationships in society as well as political participation (Alberta in Susiatik, 2013). PKn is one of the fields of study that carries out a national mission to educate the life of the Indonesian nation through the value based education corridor. The current of globalization that occurs should encourage PKn to bridge and build the readiness of citizens as smart and good citizens in all activities of global life.

Civic education has been used as a means of strengthening the noble and moral values of the Indonesian nation,

so that the presence of this subject is an effort to revive the noble values of the nation both as individuals, part of society or creatures of God. Citizenship education is vital because it aims to be citizens who have a love for their nation and homeland. Civic education is clearly needed in educational institutions to provide mental and moral guidance as well as the formation of students' personalities. The learning scope of civic education is oriented towards morals, morality and ethics. In this regard, this subject is a subject that must be taken by students, with the hope that their character can be formed in accordance with the noble values of the Indonesian nation.

In practice, Citizenship Education in Indonesia is understood as a subject that focuses on the formation of citizens to understand and be able to carry out their rights and obligations to become intelligent, skilled, and character citizens mandated by Pancasila and the 1945 Constitution (Budimansyah, 2010). Citizenship Education is education to make democratic citizens with studies and discussions that include knowledge about citizenship in people's lives towards civil society. Civic Education provides insight to students to become intelligent and civilized citizens. Civic intelligence is formulated as a person's ability to know and appreciate their rights and obligations as a citizen of society, and to be able to transform these values in daily life (Ubaedillah and Rozak, 2012:16).

The essential purpose of implementing civic education learning is to form a Pancasila character so that students have provisions in the life of society, nation and state (Hidayah et al., 2019). The depiction shows how important the values that need to be instilled and expected to exist in their citizens. However, this context needs to be rationally integrated through digital transformation. Considering that contextually, the real problem of crime is dominated by internal factors, weak self-regulation, and external factors in the digital environment, making it easier for people to learn from cyberspace (I. W. Nugraha & Abidin, 2013). In line with this, the mission of the implementation of digital citizenship-based civic education is an effort to produce quality citizens who are able to answer the social challenges of the times. Active participation and a form of actualization by producing intellectually, civilly, morally, and socially superior people in civic education in schools is the key to strengthening personality.

The formality of the realm of value fulfillment in civic education does not focus on educating and teaching activities, there are at least three forms of activities in civic education, namely training skills in society, teaching in cultivating knowledge, and educating in strengthening the personality of groups and individuals (Hamidah, 2019). The provision is expected to be able to form scientific competence about citizenship, namely knowledge, skills and character of citizens. All of these provisions are able to be the protection of individuals as citizens and responsible in their lives because the environment outside of academia has a greater influence because it is spent more by a person (Hidayah, 2020). The positive implications that have become the reinforcement and have become the basis for the Indonesian State can be re-emerged and nurtured through Civic Education, especially if it is able to contextualize with local wisdom, so that it can have a positive influence on learning motivation and practice in students' lives (Nurul Zuriah, 2020; F. Pahlevi, 2014). Skills formed through education, such as becoming citizens who are aware of their rights and obligations through an attitude of respect, are the expected direction. The aspects of

attitudes and skills that are the goals of civic education are able to emphasize the responsiveness side as a strategy to avoid various kinds of conflicts. Indirectly, the knowledge formed is able to lead to a form of attitude that is able to translate awareness of existing dynamics.

## 2. Digital Citizenship

Vitaly, the development of information technology is supported and based on the presence of the digital communication era in real time over CPS (Creative Problem Solving) through the use of the internet that is able to penetrate space and time. The existence of culture towards a world with digital technology will continue to develop and become a synergy that is able to solve problems. This trend is carried out through the use of digital as a concrete action in the world of education that empowers one's competencies and skills (Ikawati, 2021).

The rapid development of the digital world does not make humans completely in the context of cyberspace but still become intelligent citizens, able to interact in society. This condition in the realm of Indonesia is taught in civic education. The process is in order to realize the development of potential intelligence, personality, self-control and skills as a provision in living life which is also explained in Law No. 20 concerning the National Education System. The presentation of PKn learning is an effort to cultivate character on the basis of Pancasila so that it can be said that this subject is a means of forming citizens to be emotionally intelligent, spiritual, intellectual, social and hopefully produce individuals who are able to solve problems wisely (Nurwardani et al., 2016; F. S. Pahlevi, 2017).

Adjusting the digital world by integrating the concept of digital citizenship in civic education learning at vocational schools can be done by inserting this concept into several relevant teaching materials. For this reason, teachers can conduct workshops, focus group discussions, seminars and other activities that are appropriate to equalize perceptions related to which material can be inserted with the concept of digital citizenship. Until finally, from the activities described earlier, teachers can produce learning tools (lesson plans, teaching materials and so on) that have been structured to be implemented in their respective classes.

In addition, in the application of learning tools that have been integrated with the concept of digital citizenship, teachers need to approach according to student competencies, so that in their implementation a diversity of approaches, methods and learning models in the classroom can create a new mindset and perspective for students and teachers in an effort to achieve the ultimate goal of civic education subjects, namely becoming smart and good citizens (smart and good citizen).

The changing times with the advancement of information technology have formed new characteristics of citizens. In the context of citizenship, a new type of citizen has been formed called digital citizens who have certain behavioral characteristics related to technology, as explained by Ribble and Bailey (2007) in the concept of digital citizenship as shown in the following figure.

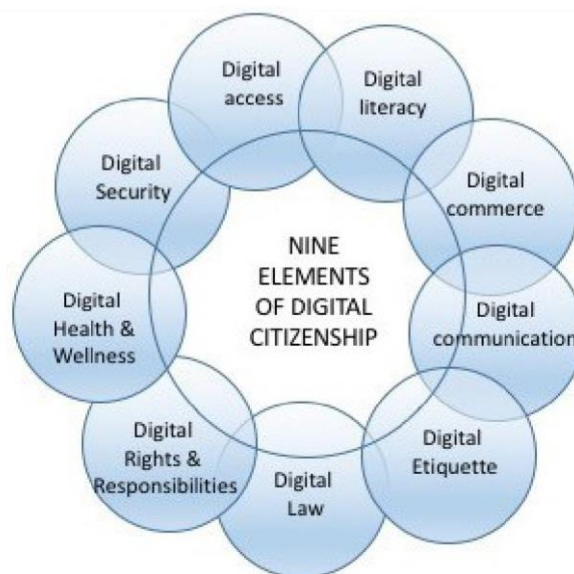


Figure 1 Nine elements of digital citizenship  
(Source: adapted from Ribble & Bailey, 2007)

Digital citizenship arises from the view that appropriate norms must be formed, as well as responsible behavior by paying attention to the use of technology, the abuse of technology use issues, and ethics in communication. This is what gave rise to the idea of bringing PKn and its development cannot be separated from this challenge. Alternative digital citizenship development through PKn learning can refer to the elements of digital citizenship. Ribble & Bailey (2007, p. 11) identifies nine elements that together make up digital citizenship, namely digital access, digital commerce, digital communication, digital literacy, digital ethics, digital law, digital citizens' rights and obligations, digital health and wellness, and digital security.

In addition to general knowledge and skills, digital citizenship is undeniable as outlined above, civic education more specifically can contribute more in preparing millennial citizens in the context of upholding human rights. The participation of digital citizens in the public sphere has had a lot of positive impacts. However, as previously described, the negative impact is also very real on the enforcement of human rights. Therefore, Citizenship learning is appropriately required to include some specific knowledge related to participation. Zook (2019) further proposes that digital citizenship must contain new concepts of learning with students having to master the important concepts of using digital technology. Thus, they can anticipate changes in participation practices in this digital era. There are seven main concepts that digital citizens must master, including empathy, understanding how the internet works, understanding internet user data, computer/internet literacy, understanding the gap in mastery of this advanced technology, practicing comfort and harmony in participation in the digital world and using this new media safely.

The use of digital technology by citizens today is not value-free. But it needs to be used properly and correctly, because the use of digital technology is bound by certain values and norms as stated in the legislation on technology and information. The learning process of PKn in the value-based education corridor should build digital citizenship competencies. Citizens who are ready for the digital world. Because the world of education is currently part of

the globalization process. Feriansyah (2014) stated that the advancement of ICT has ushered citizens into the era of information disclosure. This is what strengthens the importance of strengthening citizens' competencies in supporting digital citizenship.

### 3. Model Digital Citizenship

As the largest part of the main actors of participation, armed with digital citizenship knowledge, the millennial generation must be able to build a civilized human rights enforcement. In this context, the model proposed by Erhard Graeff (2018) The success of enforcing human rights is marked by the participation of its citizens. This can be done if public spaces are provided for everyone, are not co-opted by the state, and citizens have knowledge, skills, characteristics, and competencies. Open public space is a necessary requirement in upholding human rights (Evans & Boyte, 1986: 18). In the enforcement of participatory human rights that we currently adhered to, there is a new public sphere called a digital public sphere. Public space is a place for citizens to express themselves, transactions between citizens and the state, a means for learning between both elements of citizens and the government, and a tool to reduce the potential for excess state power over the people and people's anarchy against the authority of the government. Social media platforms are predominantly used by citizens to carry out human rights enforcement activities with awareness of their rights and responsibilities. If participation in this new public space has run as it should, then strong human rights enforcement will be created. Participation with the characteristics of communication in today's digital world requires new knowledge and skills. The enforcement of human rights will occur if citizens have efficacy, namely a strong belief in themselves that they can make changes by participating. In the available public space with the mastery of technology and new methods that are appropriate and appropriate, it will have an impact on creating a civilized human rights enforcement. This means that there is citizen empowerment. Citizen empowerment can also be prepared through the contribution of civic education learning in schools. As is known, in SMK, PKn subjects prepare young citizens with knowledge, skills and competencies and provide enthusiasm to be able to commit so that they are ready to participate in real life. Awareness of the existence of a new public space requires renewal in the content and context of PKn learning at vocational schools so that they can become smart, good, and responsible digital citizens. Responsible digital citizens described by Gibson and Levine (2003:4) are the people who:

1. Broad-minded, understanding the history and characteristics of the nation, understanding the concept of upholding human rights in their country, understanding the current conditions and issues of their nation, having the ability to access information, think critically, be able to dialogue with others, and accept differences.
2. Participate in building society through its contribution to organizations in the fields of culture, socio-politics, and religion and other aspects of life.
3. Able to carry out activities in the enforcement of human rights with the provision of knowledge, skills, competencies, and commitment to achieve a certain goal for the common good, through various channels and forms of participation in the enforcement of human rights available.

1. Have morals and civic virtues such as awareness of the rights and comfort of others, social responsibility, tolerance, respect, and mutual trust so that they are able to jointly make changes.

Digital-based citizenship is used as a means for PKn teachers to form the knowledge, skills and civic character of their students. This is because by utilizing digital-based media, it is considered able to hone the knowledge possessed by students in enriching their knowledge independently without direct guidance from teachers (Damanhuri & Juwandi, 2020).

In the context of citizenship today, a new citizen is formed, namely a digital citizen who has behavioral characteristics related to technology, as explained by Bailey & Ribble (2007) it is said that a digital citizen if he has civic knowledge, civic skills, and civic attitudes that are balanced with understanding and knowledge and skills related to the use of technology and inside information (Roza, 2020:198). The theory used in this study is Skinner's Operant Conditioning behavioristic theory. Skinner distinguishes two types of behavioral responses, namely Respondent response and Operant response (Suryabrata, 2011:271). In a simple sense, respondent behavior is a specific response that arises due to a known stimulus, and that stimulus basically always precedes the response.

Operant Conditioning is a form of learning that emphasizes responses or behaviors that are voluntarily controlled by the consequences (Zaini, 2014:20). That is, in operant behavior, the consequences or results of the behavior will determine the tendency to repeat or stop the behavior, if the result of the behavior is good it will be repeated continuously, but if the result of the behavior is bad it will tend to be stopped.

The convenience offered by technological advances is often abused for improper things, as is the case today with the expansion of the flow of information that is easily accessible through the internet, in fact, the information circulating through social media sometimes contains hate speech, fake news, and slander. The circulation of hoaxes, slander, and even blasphemy on social media shows immaturity in the use of the internet. This kind of process is sometimes imitated by school-age people, which is obviously very bad, therefore it is necessary to provide knowledge about digital citizenship to students in schools as a set of characteristics of digital citizens. A new concept was proposed for the first time by Bailey and Ribble (2007:28) in their book *Digital Citizenship in School*, it has become a necessity that in the digital era, educators and students as users of information technology need to understand various aspects of digital technology, in order to be able to use this new technology appropriately and well.

Alternative digital citizenship development through PKn learning can refer to the elements of digital citizenship. Ribble & Bailey (2007, p. 11) identifies nine elements that together make up digital citizenship, namely digital access, digital commerce, digital communication, digital literacy, digital ethics, digital law, digital citizens' rights and obligations, digital health and wellness, and digital security.

In the process of learning PKn, first, digital access can be interpreted about the community, as well as the patterns that exist in the community in access to information technology that can be a support for the implementation of PKn learning. Second, digital commerce requires PKn learning to be able to bridge the fact that the economic activities of citizens who are starting to enter the digital world (online shop). Third, PKn learning can be carried out using digital communication related to electronic devices for the

implementation of the learning process. Fourth, through learning, PKn is trained to have the ability to use digital technology and know when and how to use it (digital literacy). Fifth, through learning, citizens understand behavior that is in accordance with the standards of people's life values faced with digital technology (digital etiquette). Sixth, through PKn learning, citizens are trained to recognize legal rules related to the use of technology. Seventh, citizens are also trained to understand and recognize their rights and responsibilities in the digital world. Eighth, citizens are trained to be able to recognize the influence of the use of technology and information on health and fitness, and ninth, citizens are trained to maintain the safety of themselves, society, nation, and state from the use of information and communication technology. The development of the nine elements of digital citizenship through PKn learning can be adjusted to the level of student development and student readiness in facing the flow of globalization, especially information technology, and communication received.

The massive development of information and communication technology has certainly targeted the world of education. Therefore, the learning process in the educational environment must be able to adapt to the current conditions, namely using everything that is all digital (Simatupang, 2021). In this case, the curriculum has a role as a balancer, providing a foundation, and integrating the abilities possessed by students with the speed of technological development (Y. Nugraha et al., 2020). Civic Education is one of the subjects that participates in the rapid flow of technological developments, for which schools need to respond to this. Digital-based civic education at vocational schools will make it easier for students to understand the learning material. In addition, with the help of digital technology, all forms of information are easy to obtain so that students will find it easier to complete their work.

Judging from the results of an Indonesian poll study in collaboration with the Indonesian Internet Service Providers Association (APJII), the number of Indonesian internet users increased by 10.12%. This survey involved 5900 samples with a margin of error of 1.28%, the results of a total population of 264 million people of 171.17 million people or around 64.8% of Indonesia's population who are already connected to the internet. This number increased from 2017 which was 54.86%. Based on the results of the survey, it shows an increase in internet usage based on age, namely the age of 15-19 years is the most internet user in Indonesia around 91% of the total APJII (2019:114). It can be concluded from the results of the APJII survey above that the highest number of internet users is on the island of Java and at the age of students.

Based on Rini Triastuti's research entitled "Civic Education Development Model for Efforts to Foster Digital Citizenship through the Utilization of Information and Communication Technology in Schools" in the results of her research there are characteristics of students who use ICT, digital citizenship in control classes and experimental classes, development models used with the use of information and communication technology with pre-test results and post-test digital citizenship, and the existence of supporting and inhibiting factors to maximize digital citizenship (Triastuti, 2017).

Various previous studies from a perspective related to relevant Digital Citizenship Education, according to several experts such as Muchtarom (2018), Triastuti (2017), Ikhtiarti (2019), Hutauruk (2018), Trisiana (2019), Armawi (2020). In

Muchtarom (2018) research, the implementation carried out in strengthening digital ethics for students with various learning methods, literacy movements, and school programs such as cyber classes, e-learning-digital classes, and online PAS, as well as strengthening digital ethics to handle the spread of hoax news on social media through Civic Education with Problem Based Learning-based learning. Civic Education is important enough to accommodate the vision of citizenship by preparing students to have economic competition, complex productivity jobs, global security, and the development of internet media is crucial for the sustainability of democracy.

The results of subsequent research conducted by Triastuti (2017) show that students are digital natives, students' digital citizenship is still lacking when measured from the aspects of digital law, digital ethics, and digital rights and responsibilities. Its development includes initial design, development design and final design. The final design is to formulate KI and KD, concept maps, materials and learning tools. Students' interest in digital citizenship materials and digital citizenship materials is contextual, and civic education teachers utilize information and communication technology in learning. The implementation of the concept of digital citizenship is expected to improve the quality of history learning in schools. Trisiana (2019) explained that the analysis, design, and development of learning innovations can take advantage of digital media and existing technological developments. The implementation is with real steps in the learning system, the process to see whether the system built is in accordance with the initial target or not is the evaluation, which is seen from the learning system design model taken from the modified PPKn learning model called the Modification Project of Citizen or MPC.

Further research conducted by Armawi (2020) showed the optimization of the role of the internet in SMA Negeri 1 Semarang and SMK Negeri 1 Semarang in realizing Digital Citizenship. It is carried out by optimizing digital access, digital literacy, and digital trade, as well as in realizing the nine criteria of Digital Citizenship have been met, but there are still those that need improvement in optimization. In contrast to the relevant research above, this study wants to see the implementation of Digital Citizenship Education in shaping the character of a good digital citizen in Unesa Labschool High School students, seen from the aspect of implementation in forming a good digital citizen which is reviewed in terms of skills and responsibilities in using social media and the use of technology, namely Digital Access, Digital Etiquette and Digital Rights and Responsibility.

Digital citizenship can be defined as a norm of behavior related to the use of technology, or it can be interpreted that digital citizenship is the ability to participate in online societies (Mossberger, 2007:25). Digital citizenship can also be interpreted as the ability to use technology competently, interpret, and understand digital content and assess its credibility and then create, research, and communicate with the right tools and be able to think critically about the challenges of the digital world Triastuti (2019:25). So it can be concluded that digital citizenship is the knowledge and skills used to use technology appropriately in the digital world, manage existing risks, and take advantage of the opportunities offered by the digital world appropriately.

## V. CONCLUSIONS

Based on the description above, it can be concluded that digital-based civic education is an effort to integrate the learning of

civic education subjects so that it can form good citizens in addition to being technologically literate without forgetting the character values that must be possessed by citizens based on Pancasila and the 1945 Constitution of the Republic of Indonesia.

The digital citizenship development model in PKn learning is based on Skinner's Operant Conditioning behavioristic theory, this theory emphasizes that a form of learning that emphasizes voluntary responses or behaviors is controlled. In operant behavior, the result of the behavior will determine the tendency to repeat or stop the behavior, if the result of the behavior is good it will be repeated continuously, but if the result of the behavior is bad it will tend to be stopped.

The type of digital citizens has behavioral characteristics related to technology, namely citizens must have sufficient knowledge (civic knowledge), then civic skills (civic skills), and civic attitudes (civic disposition)) that needs to be equipped with various knowledge and skills related to the use of information technology. The development of digital citizenship through PKn learning can refer to the elements of digital citizenship, in this case nine elements that together form digital citizenship can be identified, namely digital access, digital commerce, digital communication, digital literacy, digital ethics, digital law, rights and obligations of digital citizens, digital health and fitness, and digital security.

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