



Digital footprint as a new factor in forming students' social identity and character in the digital era

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ABSTRACT

Digital technology has transformed the way students develop their social identity and character. Digital footprints, which record every online activity, now function as a new factor that shapes self-perception, social relations, and moral behavior among students. This study aims to analyze the role of digital footprints in the formation of students' social identity and character in the digital era. Using a library research method, various scholarly articles, books, accredited national journals, and recent research were reviewed to construct a conceptual understanding of how digital practices influence identity development in educational settings. The findings reveal that digital footprints significantly affect the way students represent themselves online, interact with peers, and internalize social norms. Low digital literacy leads to identity distortion, negative self-presentation, cyberbullying, and impulsive digital behavior. Therefore, digital literacy education becomes essential in supporting the development of positive digital identity and character among students. The study concludes that schools must integrate digital literacy into character education programs to help students build responsible and ethical digital behavior.

Keywords: Digital footprint, Social identity, Character building, Digital literacy, Education

A. INTRODUCTION

The development of digital technology in Indonesia has brought about significant changes in social life, particularly for students, a generation growing up in the digital era. The use of social media, online learning platforms, and various communication applications has now become part of students' daily routines. These activities create a digital footprint, a record of data left behind when interacting in digital spaces. This digital footprint is not merely a technical record but has evolved into a crucial factor in shaping students' social identity and character (Aeni, 2021).

Today's students' social identities are formed not only through direct interactions at school but also by how they present themselves on social media. Teenagers tend to project a certain self-image online to gain peer recognition. This phenomenon is exacerbated by the fact that social media allows students to project an idealized version of themselves (Fauziah & Hidayat, 2020). Consequently, the identity they develop can differ from their true selves.



In addition to social identity, students' character formation is also impacted by digital activities. Information consumed through social media, shared content, and online communication patterns can shape students' values, attitudes, and behaviors, both positively and negatively. Nufus (2020) stated that digital media influences the mindset and morals of Generation Z, including communication ethics and emotional management. Without proper guidance, students can be exposed to deviant behavior such as cyberbullying, provocation, or the spread of false information.

The quality of students' digital footprints is greatly influenced by their level of digital literacy, namely the ability to understand digital information, assess the accuracy of content, and use technology ethically. Kurniawan (2019) emphasized that digital literacy plays a crucial role in shaping responsible behavior in cyberspace. Low digital literacy makes students more likely to upload content impulsively and fail to understand the long-term risks to their reputation.

Schools, as educational institutions, play a significant role in helping students develop positive digital character. Digital literacy education needs to be provided systematically so students can use technology safely and wisely. Prayoga (2022) emphasized that schools must raise students' awareness of the importance of maintaining a digital footprint as part of shaping their self-image and character in the future.

B. LITERATURE REVIEW

1. Digital footprint

A digital footprint is a record of activities left by a person when interacting in a digital space. Digital footprints can include posts, comments, photos, search history, and even location information automatically recorded by the system (Prayoga, 2022). Madden (2020) states that digital footprints are divided into two types: active digital footprints and passive digital footprints. Active digital footprints originate from content consciously uploaded, while passive digital footprints are formed from data collected unintentionally, such as cookies or device data. In the context of education, digital footprints reflect students' behavior and can influence public perception of their identity (Aeni, 2021). Therefore, wisely managing digital footprints is crucial for developing a positive self-image.

2. Social identity

Social identity is part of the self-concept formed through an individual's membership in a particular social group. This identity is influenced by how an individual wants to be perceived by their group (Tajfel & Turner, 1986). In the digital era, students construct identities not only through direct interactions but also through social media activities such as posts, comments, and self-presentation (Fauziah & Hidayat, 2020). Digital media provides a space for students to project an idealized version of themselves. This can reinforce or even obscure their true



identities, especially when peer validation becomes the primary goal of digital media use (Boyd, 2020).

3. Student character

Character is the moral values, attitudes, and behaviors that reflect a person's integrity and personality. Lickona (2018) states that character is formed through a continuous educational process. In the digital context, students' character is influenced by how they behave online, such as how they communicate, choose the content they upload, and respect others' privacy. Nufus (2020) emphasizes that digital media plays a significant role in shaping the morals and behavior of Generation Z, so character education needs to adapt to current technological developments.

4. Digital literacy

Digital literacy is the ability to understand, analyze, and utilize digital technology wisely, critically, and responsibly (Ng, 2019). In Indonesia, digital literacy is a crucial requirement to face the challenges of the 4.0 era, where students are exposed to a variety of digital information every day. Kurniawan (2019) emphasized that good digital literacy can help students make ethical decisions, including managing their digital footprint. Students with low levels of digital literacy tend to be impulsive in online interactions and do not understand the long-term impact on their identity.

5. Previous Research

Previous research has shown that digital footprints significantly influence students' social identity and behavior. Fauziah and Hidayat (2020) found that social media use influences the formation of adolescents' self-identity through online interactions and images. Prayoga (2022) revealed that digital footprints have significant implications for students' media ethics, particularly regarding impulsive behavior in uploading content. Livingstone (2019) in an international study stated that children build social relationships and self-understanding through their daily digital activities. Kim and Park (2022) found that adolescents' digital identities are formed from consistent online interaction patterns, particularly in their efforts to create a self-image. Aeni's (2021) research also emphasized the crucial role of digital literacy in shaping students' character, particularly in understanding the long-term consequences of digital footprints.

C. RESEARCH METHODS

This study applies a library research method, which involves collecting information from various written sources such as books, journals, scientific articles, and previous research related to the topics of digital footprint, social identity, student character, and digital literacy. The research process begins by determining the focus of the study regarding the influence of digital footprint on social identity and student character, followed by collecting library sources through Google Scholar, SINTA, the Garuda Portal, and international journals



published between 2018 and 2024. All collected sources are then read and analyzed to find theories, concepts, and important findings that support the discussion. The processed data is then systematically arranged to answer the research questions. The library research method was chosen because it can provide in-depth insights into related concepts and theories without the need for direct data collection in the field.

D. RESULTS AND DISCUSSION

1. Digital footprint as a foundation for the formation of students' social identity

Digital footprints have become a crucial aspect of students' lives in the digital age because every activity they do online creates a data record that can be viewed, assessed, and interpreted by others. Based on a literature review, digital footprints are divided into two categories: active and passive (Madden, 2020). Active digital footprints relate to posts and interactions made by students consciously, while passive digital footprints encompass information automatically recorded by digital devices or platforms.

In the context of social identity formation, digital footprints function as a "social mirror" that shows how students want to be perceived. Through their digital footprints, students construct a self-image based on what they display on social media (Aeni, 2021). For example, students who frequently upload their learning activities may be seen as disciplined individuals, while students who upload humorous content may be perceived as relaxed and sociable. In Indonesia, research by Astuti (2021) shows that adolescents' digital identities are shaped by a combination of local cultural values and global influences from social media. Students use identity symbols, such as language style, visuals, and pop culture trends, to assert themselves to their peers and social groups. This finding aligns with the view of Tajfel & Turner (1986), who stated that social identity is the result of interactions between individuals and their social groups.

Thus, digital footprints are not only a record of online activities, but also an important medium in the formation of students' social identities which are influenced by their culture, school environment, and digital interactions.

2. The influence of digital footprints on representation and the formation of social identity

Students' social identities are formed through group membership and how they wish to be perceived by their peers (Tajfel & Turner, 1986). In the digital age, this process is further expanded through social media. Fauziah and Hidayat (2020) demonstrated that students tend to construct ideal identities online to gain social recognition. Students can control the image they want to project, making their digital footprint a primary means of shaping that identity. Furthermore, Boyd (2020) emphasized that social media is not simply a place to share information but also an arena for adolescents to create a social persona they hope will be accepted by their peers. As students consistently present themselves through digital posts



and interactions, their social identities are gradually constructed based on audience responses. Thus, it can be seen that digital footprints not only reflect students' identities, but also influence how these identities are constructed and perceived by others.

3. Digital footprints as character builders: between values education and moral challenges

Students' character is shaped by the habits and values they practice, both in real life and online. Character consists of moral values, ethical behavior, and the ability to take responsibility (Lickona, 2018). A digital footprint is a tangible indicator of this character. Aeni (2021) emphasized that students who understand digital ethics tend to be careful when uploading content, respect others' privacy, and avoid spreading false information. Conversely, Nufus (2020) found that negative character traits can develop when students habitually engage in impulsive behavior in digital spaces, such as making rude comments, spreading hoaxes, or engaging in cyberbullying.

Adolescents' character is greatly influenced by their social media usage patterns (Maryani & Sugito, 2022). The content they consume can shape their thinking, attitudes, and interactions. For example, exposure to negative content can normalize unethical behavior. Furthermore, digital character is also influenced by the family environment. Lack of parental supervision of children's digital activities makes it difficult for students to develop strong and stable character (Mahfud, 2021). Therefore, digital footprints can reflect character qualities and serve as a means of character formation through digital experiences.

4. The role of digital literacy in preventing distortion of student identity and character

Digital literacy is a cognitive, technical, and ethical skill that helps students understand how digital information works (Ng, 2019). Digital literacy determines the quality of students' digital footprints. Students with low digital literacy tend to be unaware that their online activities leave traces that can have long-term impacts on their identity and reputation. Research by Prayoga (2022) also noted that low digital literacy often causes students to act impulsively when uploading content. Previous research has shown that digital literacy can help students understand digital risks, recognize harmful content, and develop ethical media behavior (Aeni, 2021). Furthermore, research by Kim and Park (2022) confirmed that adolescents' digital identities are strongly influenced by their level of digital literacy, particularly in terms of managing self-presentation and self-control in the digital space.

Through digital literacy, students can maintain a healthy social identity and develop positive character. Thus, digital literacy is a key factor linking digital footprints to students' social identity and character.



5. The role of digital literacy in cultivating a healthy student identity and character

Digital literacy is key to building a positive student identity and character. Digital literacy encompasses technical, social, ethical, and cognitive skills (Ng, 2019). This literacy not only helps students understand technology but also helps them use it wisely and responsibly. Schools play a crucial role in strengthening students' digital literacy through the curriculum. Integrated digital literacy can help students understand the impact of their online activities, including how to maintain a healthy digital footprint (Aeni, 2021).

In another study, Supriatna (2022) emphasized the need for digital literacy-based character education to address the challenges of the 4.0 industrial revolution. With digital literacy, students can build a stable, responsible digital identity that aligns with the positive character traits developed at school and at home.

Thus, digital literacy not only prevents identity and behavioral deviations, but also becomes the foundation for guiding students to create meaningful digital footprints and support their social and moral development.

E. CONCLUSION

Digital footprints have a significant impact on the development of students' social identities and character in the digital age. Students' activities on social platforms, such as posts, comments, and interactions, influence how they express themselves and how others perceive them. Digital footprints also reflect students' values, attitudes, and habits, thus contributing to the formation of their character, which can be both positive and negative.

The process of identity and character formation is greatly influenced by a student's digital literacy skills. Students who are aware of ethical media use and are aware of the risks involved tend to be better at managing their digital footprint. Conversely, students who lack a grasp of digital literacy are more vulnerable to negative behaviors such as cyberbullying, the spread of fake news, or ill-considered posts. Therefore, digital literacy is crucial for ensuring that digital footprints positively support the development of students' identity and character.

F. SUGGESTION

1. Schools need to integrate digital literacy into the curriculum, particularly in subjects related to technology, social issues, and character education. Digital literacy should encompass technical skills, media ethics, privacy awareness, and critical thinking skills.
2. Teachers and educators need to be role models in the use of digital media, so that students can emulate positive digital behavior. Teachers also need to provide concrete examples of how to manage a healthy digital footprint.



3. Parents need to increase their guidance in their children's digital activities, particularly regarding security, privacy, and ethical online interactions. Open and consistent communication between parents and children is essential to prevent deviant digital behavior.
4. Students need to be educated about the risks and consequences of every online activity, so they are more cautious about leaving a digital footprint. Instilling the values of responsibility and caution should be a priority in digital character development.
5. Further research is recommended to examine the influence of digital footprints using mixed methods or field research, in order to gain a deeper understanding of student behavior in digital spaces and its impact on identity and character.

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