

A Conflict Embedded in Digital Literacy Related to Health Issue  
健康問題に関するデジタル・リテラシーに内在する対立

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Abstract

Today, people cannot avoid advanced technology related to the Internet such as social media compared to so-called old media such as newspapers, TV, or radio. In particular, the younger generations who are born when digital devices are widespread already in their community, that is, digital natives, must cope with this situation. In this study, a review article, the characteristics of digital literacy on health issues, that is, eHealth literacy would be scrutinized to grasp the clues that could enhance the citizen's well-being. eHealth literacy is mixed skills that are the usage of digital tools on the one hand and the ability to treat them critically and objectively for their well-being on the other. Also, it might mean that the availability of health information on the Internet, especially social network services, does not necessarily lead to consumers' absolute acceptance of it automatically. We, the humans, often need verification from trusted resources rather than useful but untrustworthy media platforms.

Keyword:

Social Media, Social Media Literacy, eHealth Literacy, Embedded Conflict

## **Introduction**

Today, people cannot avoid advanced technology related to the Internet such as social media compared to so-called old media such as newspapers, TV, or radio (Parandeh Afshar et al., 2022). In particular, the younger generations who are born when digital devices are widespread already in their community, that is, digital natives, must cope with this situation. They can access information easily and immediately; therefore, their daily lives highly rely on online platforms to obtain, understand, analyze and apply information to their everyday decision-making. Without this accessibility, people may become the information poor who tend to face disadvantages, meaning that they cannot catch up with up-to-date information and cannot utilize it practically in their routines. Hence, how to enhance our competence, that is, digital literacy, is crucial for the citizens, in particular for the adolescents, living in this modernized society.

This capacity is required not merely in terms of domestic and international political and economic affairs, that is, high politics, but also of issues related to daily life, that is, low politics. In particular, health issues are essential for the citizens to maintain their well-being, shedding light on the collaboration with advanced technology (Atique et al., 2016). If the person is familiar with digital devices, he or she can improve their quality of life drastically, although information on the Internet is not always true, accurate, and trustworthy. It enables the citizens to keep healthy by utilizing various online platforms.

Notwithstanding this benefit, as mentioned above, these skills, that is, digital literacy, impose disadvantages on the people who are in scarcity of crucial health information (Atique et al., 2016, Manisha, 2023). Given that the people have digital literacy, they can grasp necessary information from the websites on the Internet; more importantly, their close people inform them of the way in which they can gain their better well-being through online platforms, meaning that the Internet can connect people with their close ones tightly and deeply as we shall see later.

This does not necessarily mean that the ties with close people online lead to positive effects, while we cannot ignore the fact that the ties give them the power to improve their quality of life. Nor does it always mean that they reduce their anxiety connected to health effectively (Demirtepe-saygılı et al., 2021). Rather, George et al. (2023: 120) opine that “[a]lthough social media can be an effective channel to disseminate health information, it is also important to note that due to the lack of formal oversight on social media, misinformation can easily spread among users”. This intimacy may deteriorate their ways of living, indicating that they could be surrounded by that

intentional and unintentional false information, that is, misinformation and disinformation that result in the users' anxiety.

Thus, digital literacy, that is, the use of digital media to control the citizens' health behaviors and attitudes with distinguished and selected online information (Begoray et al., 2014). In other words, the users are required to have critical perspectives in order to comprehend the information via the Internet, especially social media platforms. These skills and knowledge are vital for the adolescents mainly because “[t]o increase students' digital and media literacy will provide a significant contribution to improve their eHealth literacy skills to be healthier adults and older adults in their future life” (Dolu & Durmuş, 2023: 16). In this context, eHealth literacy can be defined briefly as mixture of health literacy, digital literacy and media literacy (Dolu & Durmuş, 2023).

eHealth literacy does not mean screen time when users spend online searching for entertainment or personal inquiry. Hence, the definition of eHealth literacy falls into the category of deep understandings of their health issues specifically to digital contexts and milieu (Schulenkorf et al., 2021). Put differently, its definition would be considered as the ability to comprehend, evaluate and choose accurate and high-quality health-related information derived from social media platforms mainly for their better decision-making in daily lives (de Oliveira Collet et al., 2024).

In this study, the characteristics of digital literacy on health issues, that is, eHealth literacy would be scrutinized to grasp the clues that could enhance the citizen's well-being. In this sense, this research is classified as a review article, so that it does not contain the original data or experiments. Nevertheless, I am of the view that this article would be beneficial for the people in the modern society on the grounds that the nature of digital literacy on health issues is elusive owing to complex and ambivalent relationship between users and its interactive environment. To clarify its contradictory nature could lead to the development of our better comprehensions on how not to worsen our lives but to alter the ones in a positive way.

### **Media as Double-edged Blade**

Before clarifying the innate character of eHealth literacy, to retain deep insights into the media is indispensable for us because “[t]he media is like a double-edged blade that can either increase awareness and knowledge by providing accurate information or mislead people with incorrect information and news. The media play a significant role in shaping the culture and personality of every individual” (Parandeh Afshar et al., 2022: 199). As mentioned above, the media can give us the power in a positive sense on the one

hand. However, the audience may be misled to understand poorly the way in which the media convey the information to them unilaterally; rather it may lead to deterioration of their well-being on the other hand.

For example, the reception of food or body images on Instagram, that is, one of the leading social media, could affect the girls' mindset or way of thinking adversely since the images inspire them even though they know the images on Instagram do not necessarily reflect the actual reality in our world (Riesmeyer et al., 2019). Concretely speaking, their nutritional behaviors would be affected by their obsessions with the posts on Instagram that accelerate the girls' extremely slanted attitudes because of the driving force by the social media platform.

As mentioned above, the information on social media could be sometimes accurate and trustworthy but it simultaneously contain false information; more importantly, despite the widespread false information, the adolescents tend to have excessive overconfidence in their capacity to handle health information by utilizing digital means (Patil et al., 2021). This overconfidence may culminate in wrong decision-making that influences adolescents' adverse health outcomes. For they are too familiar with this advanced technology such that it tends to decline their critical and objective thinking.

Also, along with forementioned tendency, Estakhrian Haghghi et al. (2017: 124) state that "[t]here are two sources of information available to the community, i.e. those who are officially authorized and monitored and those which are open sourced with no or limited supervision". The former is defined as the information from the authorities such as governmental agencies, while the latter means individual connections with concerned parties via traditional or advanced technological methods.

In addition, even in the latter category, there are conceptually two types of measures to reach the health information. The one is interpersonal, and the other is the one disseminated by media, although these concepts are not necessarily mutually exclusive. The latter has changed media landscape drastically (Estakhrian Haghghi et al., 2017). Put differently, the adolescents, that is, the digital natives, could blur the boundary between interpersonal and media channels, for the current evolution of social media platforms and their networks might be able to establish new aspects of relationship, displaying that the gap between interpersonal information and the one conveyed by the media, especially online social media, is narrowing (Paek et al., 2011).

The adolescents who obtain health information via interpersonal relationships might be affected by the one from the media, while they can be influenced by their close people about the information that they grasp via mass media (Paek et al., 2011). The point is whether the interaction could be captured or not to analyze the nature of social nexus

interpersonally and/or collectively by using social media.

### **Social Media and Literacy**

Social media has altered ways of thinking and behaving positively and negatively (Estakhrian Haghighi et al., 2017, Demirtepe-saygılı et al., 2021, de Oliveira Collet et al., 2024), especially in the realm of healthcare (George et al., 2023, Rodrigues et al., 2023). Estakhrian Haghighi et al. (2017: 125) insist that “[s]ocial media are a powerful mode of communication because they enable the adults and adolescents to align around interpersonal relationships and common interests”. In this context, social media can disseminate the health information reaching the audiences speedy and easily if the users are familiar with these tools, so that social media use on education, in particular literacy programs would be effective to enhance public awareness (Fathi et al., 2024). The word ‘literacy’ is a crucial concept in this section since without literacy people cannot maximize its utility and reduce the risk that affects their well-being adversely; that is, misinformation and disinformation.

Misinformation and disinformation spread through social media platforms in this modern society, meaning that social networks would be an important forum conveying the wrong information, in particular health issues for the purpose of this study, among the peoples and intervening into their understandings because of their lack of authoritative filters on them (Harnett, 2020, Nazarnia et al., 2022). In general, social media is a convenient forum for users; however, as mentioned previously, the more convenient the platforms are, the more widespread the information, including either trustworthy one or not, is prevailing.

Thus, to train our ‘eyes’, so-called literacy, is an old and new problem, otherwise people would not be able to figure out their whereabouts with full of inaccurate information. According to Fathi et al. (2024), using social media has an influence on people’s literacy on health issues, for people who do not have enough health literacy could improve it surely by using social media. Due to the platforms with proper literacy, people can acquire up-to-date information and be conscious of the risks entangled with necessary information. In this sense, it can be said that literacy on social media sheds light on the users’ comprehensive, critical and analytical skills to objectify the information surrounding them.

Exactly, Squires et al. (2023: 68) claim that “[t]he importance of critical thinking for health education has been amplified during the pandemic and with the current news and social media climates and continued growth in these areas, the absence of critical media literacy more generally will present challenges for individuals entering these spaces”. In

line with this thought, as we shall see below, the significance of eHealth literacy is at stake. Put differently, these new platforms would enlighten the users by adequate education and learning, indicating that they determine the users' viewpoints about the world where they are living with their biased lens that everyone definitely has (Daneshvar et al., 2023).

Hence, social media literacy needs to be considered as an indispensable capacity for people to acquire the skills that enhance critical thinking on the one hand, and prudent behavior on the other (Riesmeyer et al., 2019). At least, media literacy means that developing the measure attempts to bridge the gap between the adolescents who are affected by advertisements and their behaviors (Hindmarsh et al., 2015). However, social media literacy on health issues is beyond this interaction.

For instance, Harnett (2020: 159) points out that “[w]hile health literacy advocates have long included criteria by which to evaluate online health content in instruction, less may be known about the skills needed to evaluate social media content. For many individuals, social media is seen as an extended community of friends and family.” This intimacy among friends and family is one of the prominent features on the relationship between media health literacy and social media, part of embedded conflict in this arena. As a result, the relationship is a remarkable focal point of this study since this ‘imagined’ connection results in the unique phenomenon as we shall see below. Before scrutinizing this distinction, this research focuses on the nature of eHealth literacy since it may specify the uniqueness vividly.

### **eHealth Literacy**

eHealth literacy is defined as the ability to utilize not merely the digital technology but also “the motivation and skills to seek, find, understand and critically appraise health information from eHealth resources and apply knowledge gained to address or solve a health problem” (Brørs et al., 2020: 458). Hence, it can be said that eHealth literacy is mixed skills that are the usage of digital tools on the one hand and the ability to treat them critically and objectively for their well-being on the other.

There is some previous research on eHealth literacy, for they concluded that the levels of eHealth literacy might be able to affect the behaviors of users and simultaneously the structure of the learning environments by utilizing the guidance via online health information (Levin-Zamir & Bertschi, 2018). This way, first, previous studies tend to focus on the relationship between eHealth literacy and its outcome, highlighting that the extents of its literacy on social media platforms increase the consumers' entire well-being by distinguishing useful information on it from harmful one individually.

Put simply, Dolu and Durmuş (2023: 16) insist that “[e]lectronic health literacy plays an increasing role for people to protect and promote their health today. To increase the level of eHealth literacy of individuals helps to increase their capacity to meet their health needs”. Also, according to de Oliveira Collet et al. (2024), the high levels of eHealth literacy mean the people’s interest in their health. This is the typical description about the effectiveness of eHealth literacy and its outcomes.

At the same time, as Levin-Zamir and Bertschi (2018) point out, secondly eHealth literacy would shape the forum where the users communicate with one another and where they can learn something from other users or beneficial prompts through various platforms. In this sense, their discussions result in the structure of communication among users on social media and its relevance. In other words, Dolu and Durmuş (2023: 18) claim that “eHealth provides people easy access to health information through computer-mediated platforms e.g., forums, and telemedicine applications regardless of their geographic location”. Due to the development of this forum, the users can share their health concerns and curiosities to enhance their health since they are similar in terms of seeking health-oriented information (Dolu & Durmuş, 2023).

However, as will be discussed in the next section in detail, I am of the view that the relationship between a person who is the concerned party on social media platforms and the one or ones who substantially affect the behavior of the person should be scrutinized since without these perspectives we cannot obtain the texture of the relationship itself in this modern society. Put differently, previous studies might assume that the platforms themselves are autonomous as the forums in which the users perfectly tell positive health information from negative ones by training their literacy that educators give to the users, in particular, the adolescents.

Nevertheless, for the time being, it is of great importance that this article seeks the meanings of eHealth literacy on the grounds that how the notion itself shapes the users’ ways of thinking and behaving critically and objectively is a necessary step towards the better understanding of the author’s interest as mentioned previously (Higgins & Begoray, 2012). To clarify whether and how adolescents start and continue to learn these critical skills, so-called eHealth literacy in this context, is crucial for the scholars who conducted research because the modality between adolescent users and health information platforms was unclear to some extent.

In this sense, the ability to discern beneficial health information from adverse one is the cornerstone of the assumption that these platforms give users, especially adolescents, the ability naturally if the users are absorbed or at least engaged in the platforms (Hung et al., 2021). Apparently, these previous studies emphasized the risks that adolescent

users may expose themselves to the health information, but the presumption that the platforms are somehow ‘contagious’ or always influential among the users is patently obvious to the scholars (Higgins & Begoray, 2012).

On the other hand, the people with low levels of eHealth literacy are exposed to incorrect health information. For example, George et al. (2023: 127) state that “[i]ndividuals exposed to false information who possess lower health literacy and poor analytical skills may be unable to evaluate the accuracy of online information, especially found on social media, effectively”. When adolescents with lower health literacy are engaged in searching for information on social media, they are more likely to be misled (Patil et al., 2021).

According to de Oliveira Collet et al. (2024), however, the more the users acquire eHealth literacy, the less they are affected by digital influencers. Influencers without proper knowledge about health information on social media are impactful in general, but they cannot fulfill, or ‘abuse’, their role if the users are strongly linked with eHealth literacy. Then, next problem at issue is who is a key person or people to influence the users who are familiar with eHealth literacy. Exactly, that is the purpose of this article to specify the factors that are crucial for the people with high-eHealth literacy to determine their activities in their daily lives.

### **Embedded Conflict**

As discussed before, the Internet has drastically changed and continues to alter the modalities of our daily lives; however, it can be said that the Internet is not a panacea for the people in today’s society. Not only do consumers seek health information online but also consult with close people to obtain useful suggestions (Atique et al., 2016). It might mean that the availability of health information on the Internet, especially social network services, does not necessarily lead to consumers’ absolute acceptance of it automatically. We, the humans, often need verification from trusted resources rather than useful but possibly untrustworthy media platforms.

Obviously, the Internet and online services have some advantages, that is, media consumption, on the one hand, spurs the young users to attempt to access the new media platforms (Daneshvar et al., 2023), but on the other hand, the excessive stress is impactful on their media health literacy (Jindaratnaporn et al., 2022). Therefore, when the adolescents utilize the social media to retain health information, they may hesitate to connect themselves with untrustworthy, or at least unknown, information resources. Every rose has its thorn. Without these drawbacks, the media consumers including younger generations cannot utilize the usefulness of advanced technology fully.

In this sense, there would be the notion of embedded digital literacy that is accompanied by the attitudes toward health behaviors of users' close people such as friends or family members (Paek et al., 2011, Riesmeyer et al., 2019, de Buhr et al., 2020). Even strong influence on media consumers from social network services, we cannot overlook the power of pristine solidarity among close people. Then, the point is whether these primitive relationships on recognition of health-oriented behaviors to what extent are affected by the drastic momentum of online health information. Therefore, this perspective might allow us to depict the nature of pristine human relationships with close people before examining the impact of online media.

Besides the magnitude of online network services, previous research reveals that there are controversies of how influential their parental pressure is on the adolescents, while their friends have surely impacted on them as a member of peer groups (Paek et al., 2011). When the adolescents share the daily lives with their peers, it may mean that they subconsciously affect how they behave consciously or subconsciously.

However, Paek et al. (2011: 134) also claims that “[w]hile parents, friends and schools are primary and intimate socialization agents for adolescents, media have also long been considered important socialization agents”. As a result, the more often the adolescents obtain health information from their families, friends, and even schoolteachers, the higher their levels of health literacy, while simultaneously the media provide positive well-being with them as an intervention of their daily behaviors (Paek et al., 2011, George et al., 2023).

In this context, there would be a controversy related to health information if close people directly or indirectly influence the adolescents when the media convey the opposite information to them at the same time. Herein, we could reach the concept of an embedded conflict between close people and the media, including social network services in terms of eHealth literacy.

The reason this article uses the word ‘embedded’ is because this conflict belongs to the human nature that face-to-face communication, or individual reliability rather than usefulness on social media platforms. In other words, even though people become accustomed to the advanced technology, we cannot ignore the magnitude of primitive communication. In this sense, this type of conflict can be categorized as the embedded one from the viewpoint of human nature.

Hence, it can be thought that humans have some limitations to digest the health information from either face-to-face relationships or the media including social network services. Interestingly, according to Patil et al. (2021), five sources of health information would be available and indispensable for the adolescents, showing that close people

and/or social network services are counted as the five socialization agents for the adolescents' well-being. The crux of this conflict is located in their decision-making when their direct interaction with close people is against the health information derived from online media. A better understanding of the embedded conflict would be required increasingly because it highlights the characteristics of our communities.

## **Conclusion**

This article attempts to specify the modalities of media literacy related to health issues and the whereabouts of an embedded conflict between social media and its users in the field of health problems. Due to the characteristics of this study, that is, review article, there are no statistical corroborations, so that it lacks numerical evidence since they are based on previous research fundamentally. Also, this does not include qualitative and/or quantitative analyses and concrete examples; therefore, future studies should focus on their originality with their own data and/or case studies.

Furthermore, this study tries to clarify the meaning of an embedded conflict in digital literacy in media related to health issues for the users, especially for the adolescents. Nevertheless, this argument is just a first step to embark on the journey of studies connected to the perspective of the embedded conflict. Future researchers should seek sophisticated descriptions and reasons to shed light on the nature of the embedded conflict.

Besides these drawbacks, I am of the opinion that this article can illustrate the core of the arguments and future direction towards the comprehension of the embedded conflict in eHealth literacy. Hence, it can be said that the clarification of the relationship between social media and its users in the arena of health contributes to the development of understanding of human nature in this modern society.

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