

# Exploring the Components of Digital Identity on Social Networks Sites: Identifier, Post, Profile Photo, and Selfie

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[Doi:10.19044/esj.2024.v20n1p1](https://doi.org/10.19044/esj.2024.v20n1p1)

Submitted: 03 December 2023  
Accepted: 01 January 2024  
Published: 31 January 2024

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*Cite As:*

El Yazidi R. (2024). *Exploring the Components of Digital Identity on Social Networks Sites: Identifier, Post, Profile Photo, and Selfie*. European Scientific Journal, ESJ, 20 (1), 1.  
<https://doi.org/10.19044/esj.2024.v20n1p1>

## Abstract

The digital age has ushered in a paradigm shift in self-expression and identity construction, with social network sites (SNSs) serving as vibrant canvases for individuals to shape and project their digital personality. This paper focuses on delving into the intricate components of digital identity on SNS, focusing on four key elements: identifiers, posts, profile photos, and selfies. Based on a descriptive and analytical method, this article attempts to draw up a detailed and nuanced analysis of the multiple facets of digital identity, thus providing a solid basis for in-depth understanding of this complex phenomenon in the specific context of social networks which technically regulate the representation of self. The results obtained show that the construction of a digital identity is framed by the architecture of SNSs, which incite users to manifest their selves, thus producing unlimited digital traces that reflect their personality traits. The results also provide an understanding of the structure of SNSs that aim to raise awareness of presenting a positive self-image in the digital world.

**Keywords:** Digital identity, Social networks sites, Identifier, Post, Profile photo, Selfie

## Introduction

One of the most important features of Web 2.0 is the involvement of Internet users in content creation and in forging relationships between them.

In 2005, the most popular websites in terms of visitors were eBay, Amazon, Microsoft, AOL, and others, including e-commerce sites (Cardon, 2011, p. 141). However, these sites disappeared from the rankings in 2008, in favor of platforms such as YouTube, Myspace, Facebook, Hi5, and Wikipedia. This transformation of the web has been significant (Cardon, idem). In the real world, individuals engage in social behavior and extend these interactions to social networking sites. In physical environments, people interact with those nearby, while in the digital world, communication processes are more extensive (Sufiani, 2020).

The reason for the success of social networking sites rests on the way individuals express themselves and reconstruct their sociality through new practices of presentation and exposure. Social networks sites have transformed the vast space of the web into a familiar and navigable space. Users on these platforms express their identities in diverse ways (Cardon, 2011, p. 142). At the beginning, when these digital platforms appeared, people presented their daily lives and revealed their personal interests and tastes to a limited extent. Today, the inverse is observed. Everything is exposed on these platforms, and few people hide their private lives from digital view (Idem, 2011) The expansion of an individual's visibility on social media is directly related to the hybrid nature of these social networks sites, which represent a combination of networks of friends and thematic networks such as groups and tags. This heterogeneity within relational spaces fosters diverse forms of communication and digital navigation (idem, 2011, p. 142-144). Nonetheless, this communication can only be achieved by constructing a digital identity and accessing a digital space in which the interaction takes place.

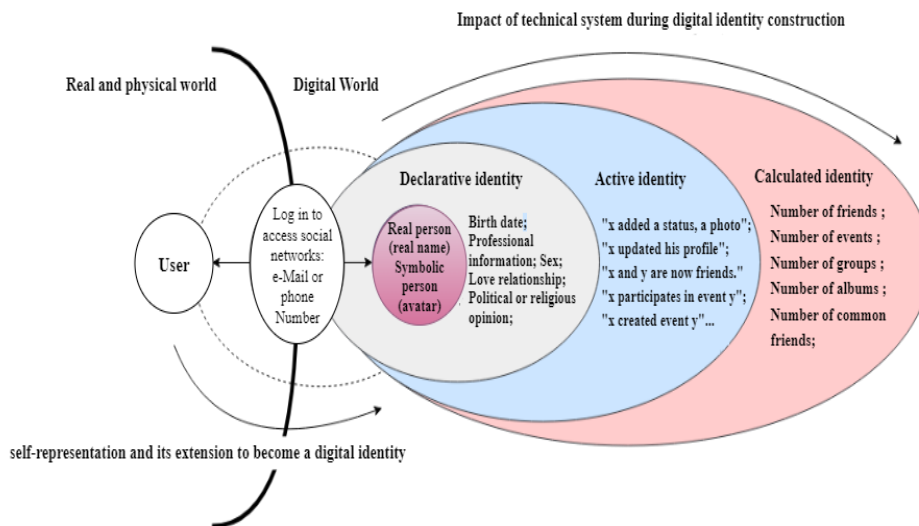
### **Digital Identity: An Essay of Definition**

Digital identity is defined as the collection of all the traces a person leaves when navigating the Internet, whether consciously or unconsciously. These traces include a wide range of data such as writings, audio or visual content, messages exchanged on digital forums, online shopping transactions, and specific names associated with digital identity. Therefore, it can be said that the model of self-representation refers to the signs that a person adopts to represent themselves (Georges, 2011, p. 32).

Digital identity can also be defined along three dimensions:

1. The technical dimension: This is the total of digital effects stored in the memory of digital media.
2. The social dimension: It interprets the effects left behind by others as intermediaries for presenting oneself at a distance (remote presence).
3. The cognitive dimension: This concerns the self-image declared in digital media and participation in the construction of self (Idem, p. 33).

Consequently, the process of digital self-presentation consists in revealing signs that bear witness to the individual's civil, professional, and social identities, which are intertwined. These include certificates obtained, the university where they studied, as well as signs that reveal an active personal identity (Péssilier idem, p. 77) (Cardon, idem, p. 101). Web 2.0 has transformed modes of self-presentation and display. Self-presentation encompasses not only the signals explicitly declared by the user but also signs generated by other users, which is influenced by the nature of the information system within which they exist. These include comments and all the activities a user conducts when navigating the Internet. The following figure highlights the impact of the technical system on the user when constructing their digital identity (Georges, 2011, p. 39).



**Figure 1 .** Self-representation and Digital Identity Construction  
 (Georges, 2011, p. 39) (El Yazidi, 2023, p. 110)

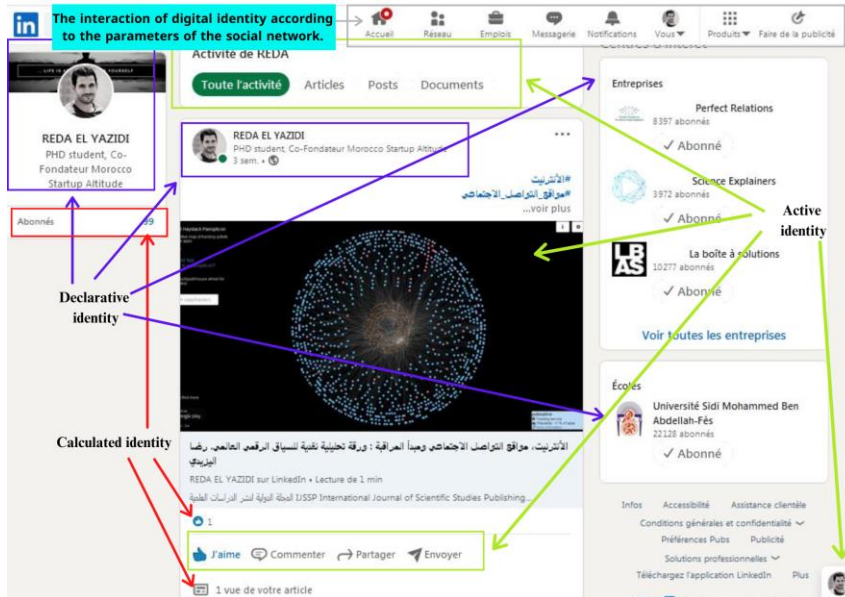
Figure 1 shows the technical framework within which digital identity is constructed. It demonstrates that digital identity is made up of three integrated elements: declared identity, active identity, and digital identity. At the same time, the figure shows that control over digital identity and self-presentation passes from the user to the information system. As soon as a user starts the process of constructing their digital identity, they gradually begin to lose control of their self-representation to the information systems (Georges, 2011, p. 39).

It is important to note that one of the characteristics of Web 2.0 is the shift from interaction with machines via the screen (interactivity) to interaction with individuals (social interaction), emphasizing the creation of networks

through not just information exchange but also the sharing of knowledge (Quoniam & Lucien, 2009, p. 16-28). It can be said that the development of technological structures has greatly contributed to the advancement of social structures (Idem, p. 28).



**Figure 2 .** The Personal Profile Page on the Facebook Social Network (El Yazidi, 2020, p. 175)



**Figure 3 .** The Personal Profile Page on the LinkedIn Social Network  
(El Yazidi, 2023, p. 111)

Figures 2 and 3 represents the user profile page interface on Facebook and LinkedIn, which are among the largest and most famous social media networks in the world. For example, Facebook had around 2.98 billion monthly active users in the first quarter of 2023 (Statista). LinkedIn, on the other hand, reports around 930 million users in its latest statistics (LinkedIn, 2023). It is clear from the user profile page interface that these platforms include various categories of digital identity, making them an excellent platform for constructing digital identity. Not only do they enable users express themselves, create relationships, and introduce themselves, but they also offer the opportunity for self-discovery and recognition by others. In addition, they provide a continuous process for producing social links, effects, interactions, and most importantly, interpretations. Certainly, modern information and communication technologies now possess the ability to recognize each person, categorize distinctions, and identify individual characteristics, both personal and behavioral. Thus, this process establishes the starting point of what Ertzscheid called: "The new documentary body of a global informational environment (...), which explains that a person has become a document (digital information) like other documents, and he no longer has his own identity and has no control over its exposure/visibility except to a slight/limited extent" (Ertzscheid, 2009, p.33-40).

## **Definition of Social Networking Sites**

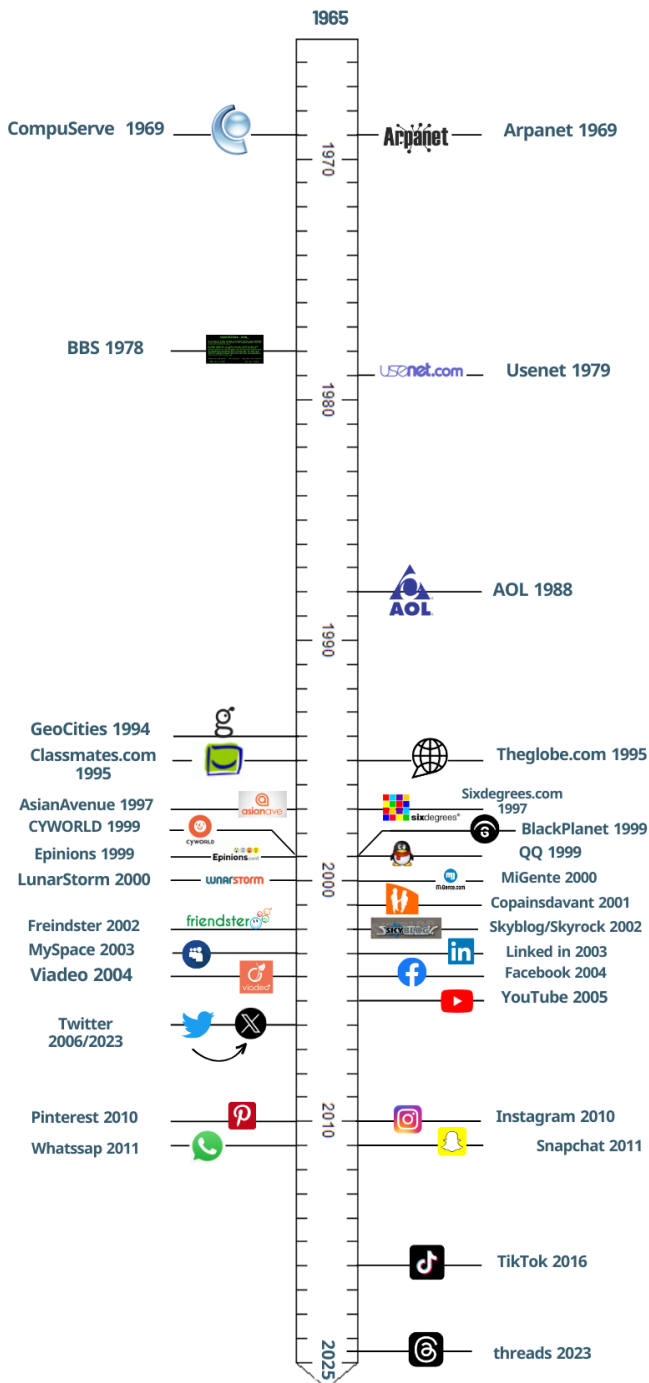
The concept of social networking sites revolves around viewing the internet as a distinct social space. The primary function is to facilitate user interactions, ensuring the continuous generation of content in the form of digital traces (digital identity). This goes beyond the initial model of the internet (Internet 1.0), which primarily served as a platform for distributing documents and digital content (Zammar, 2012, p. 88).

Dana Boyd and Nicole Ellison defined social networks as Internet services that enable individuals, firstly, to create a public or semi-public profile through a specific interactive system. Secondly, they allow the creation of networks by users who, in turn, have other networks through which they view, exchange, and forge relationships. The nature and denomination of these links can change from one site to another (Boyd, 2007, p. 1) (Boyd & Ellison, 2008, p. 211) (Kaplan & Haenlein, 2010, p. 61).

Social networks sites can be divided into two opposing categories. The first category requires users to provide their real name and email address, which leaves no margin for anonymity. In contrast, the second category insists that users' identities must not be revealed, restricting their interaction to usernames or digital avatars when engaging with others on the network (Tisseron, 2011, p. 103). Consequently, it can be said that social networks have provided spaces for self-representation and projection by offering a variety of symbols and relational tags (Péssilier, 2017, p. 76).

It is also important to mention that not all social networks sites were created in the same way as they are known and observed today. For example, the QQ network began as an instant messaging service in China, LunarStorm began as a private community website, Cyworld began as a discussion forum to foster interaction in South Korea, and the French website Skyrock (formerly Skyblog) began as a personal blog service before it developed and added some of the features of contemporary social networks. Classmates.com, which was initially a guide for schools that contained student lists, gradually added a large number of people after updating to keep up with the structure of current social networks. In addition, AsianAvenue, MiGente, and BlackPlanet, which were originally ethnic sites, quickly emerged on the social networking scene, but had limited use until they were reinvented in 2005-2006 with new digital structures (Boyd & Ellison, *idem* p. 213).

The following is a timeline of the emergence of the world's most famous social networking sites:



**Figure 4 . A Timeline of the most Popular Social Networks Sites  
 (By Author)**

One of the characteristics of new information and communication technologies is the reconstruction of relationships between individuals in space and time. As a result, the question of the evolution and sustainability of social links has been renewed with the emergence of social networks sites, from which users derive new forms of collaboration and interaction through the digital medium (Zammar, 2012, p. 88). Furthermore, the traditional form of social links, that requires geographical proximity, has become a subject of discussion due to the use of the internet and social networking sites. These sites encourage the renewal of social links and a shared space, although not always in real time (Zammar, idem, p. 88).

Therefore, social networks can be described as a set of applications based on the principles of social Internet 2.0, established on ideological and technological foundations that enable the exchange and sharing of user-generated content (Kaplan & Haenlein, idem, p. 61).

The functional uses of social networks sites can be summarized into seven basic categories:

**Table 1.** Functional Uses of Social Networking Sites

<b>Functional Uses of Social Networking Sites</b>	
<b>Presence and assistance</b>	The extent to which users are aware of the presence of other users for communication purposes.
<b>Sharing</b>	The extent to which users exchange and share content.
<b>Relationship building</b>	The extent of links between users.
<b>Identity</b>	The extent to which users reveal their true personality and identity.
<b>Reputation</b>	The extent to which users are aware of the social status of others and the quality of the content they provide.
<b>Conversations</b>	The extent to which users communicate with each other.
<b>Group/community creation</b>	The degree to which users are organised or form groups/communities.

(Kietzmann et al., 2011, p. 243)

Based on the above mentioned elements, Zammar concludes that social networks sites are:

- An information infrastructure integrated into the Internet system, which, in turn, is interconnected to another information infrastructure.
- A global communication infrastructure that affects all areas of human activity.
- An information infrastructure that is invisible to users, such that these digital media hide behind their uses, applications, and designs (Zammar, idem, p. 67).



## Methods

This study opted for a descriptive and analytical method (Neuman, 2014) in order to deeply explore the various components of digital identity on social networks sites. This methodology allowed researchers to provide meticulous details on the various aspects of digital identity, while focusing on the distinctive characteristics, behaviors, and interactions observed within this digital environment.

## Results

### 1. Components of digital identity on social networks sites: identifiers, posts, profile photos, and selfies

Based on leading prompts such as "What are you doing now?", "What's on your mind?", "What's new?", and "Express yourself", contemporary social networks sites aim to gather various aspects of users' self-expression in order to feed and expand information flows through features like walls, news feeds, or profiles. This mode of self-expression which individuals interact with adopts the structure of an empty writing frame, promising to present every visual or pictorial interaction and every written statement as an expression declared 'now' through unlimited notifications to other network members (Gomez, 2016, p. 65-66). As a result, every interactive moment within this social framework leaves digital traces linked to memory and history, compelling individuals to revisit these moments consistently.

Therefore, it can be said that the design of social networks sites has a compelling force in guiding users on both the expressive and behavioral level (Péssilier, 2017, p. 78). The following is an illustrative example of what can be found when accessing social networks sites such as Facebook, LinkedIn, and Twitter, in an attempt to engage users to express their "self" and personality.

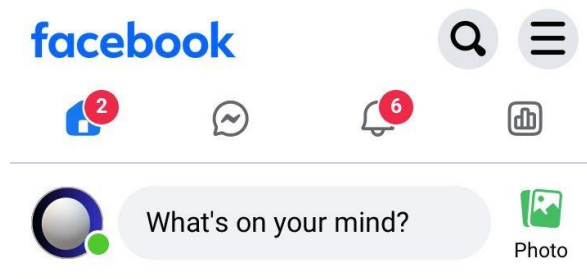
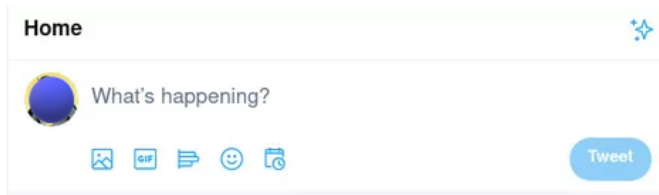
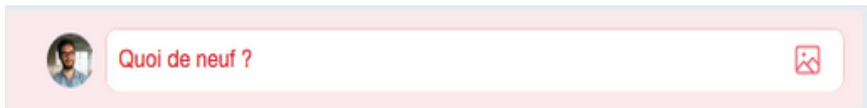


Figure 5 . Picture Captured from Facebook Wall



**Figure 6 .** Picture Captured from X (twitter) Wall



**Figure 7 .** Picture Captured from Linked-in Wall

In addition, the profile photo is considered as one of the elements indicating the identity of an Internet user. It contributes to both declarative and active identity, distinct from personal photos found on official documents like national IDs or passports, which adhere to administrative dimensions. Additionally, it plays a role in active identity as a choice exercised by individual Internet users. This choice is constantly linked to the self-image that individuals wish to share with others. As a result, users' profile photos change considerably depending on their self-image, which in turn changes depending on the user's emotional state (Chagdali, 2017).

Recent studies have shown that personal photos contain significant indicators and signs that can be used to identify an individual's personality (Nestler et al., 2012, p. 689-717). The study's conclusion suggests a correlation between the trait of extroversion and facial attractiveness, openness and lip size, and conscientiousness and the femininity of facial features. Notably, these signals and signs are predominantly associated with facial characteristics and remain unalterable by the user during photo capture (Qiu et al., 2015, p. 444).

While other studies used spontaneous photographs taken by experimenters, it was found that the extraversion factor was associated with happiness and smiling (Borkenau et al., 2009; Naumann et al., 2009). Additionally, narcissism was associated with attractiveness, flashy clothes, and women wearing make-up. It was further observed that extroverts posed in more active ways, while introverts posed in more tense ways in full-body photos (Naumann et al., 2009). However, it should be noted that the photos used in these studies contain cues that can be manipulated by participants (facial expressions and body positions), since they were not taken in a natural environment for the purpose of self-expression.

In the same context, Chagdali mentions that in several cases, the use of personal photos is a way of presenting current events or expressing personal and sometimes even collective convictions of Internet users. Moreover, the

decision of not showing one's real profile photo on the Internet and using alternative images is a behaviour aimed at navigating the Internet without revealing the user's real identity (Chagdali, 2017, p. `6).

The following are some examples of profile photos on social networking sites:



Figure 8. A Sample of Profile Photos from Facebook

In addition to the profile photo, which serves as a means to ascertain a user's identity, there exists another indicator that reveals a user's active identity: their identifier. Although many people use their real names in their social networking profiles, there are also others who use fake names or pseudonyms to avoid revealing their real identity to other users (Chagdali, idem, p. 7).

Major internet companies like Google and Facebook have extensively pursued the implementation of policies requiring users to use their real names, as confirmed by Kossef (2022). To understand the rationale behind these measures, one must consider them in the context of the ideological and political dimensions of social networking site usage, encompassing aspects such as monitoring, tracking, and surveillance of all users.

Antonio Casilli considers that the adoption of fake names by users may reflect a desire for a degree of independence in the use of digital platforms. Many users have several pseudonyms to avoid registration processes and digital tracking (Casilli, 2012, p. 17).

The following are examples of user identifiers on social networking sites:

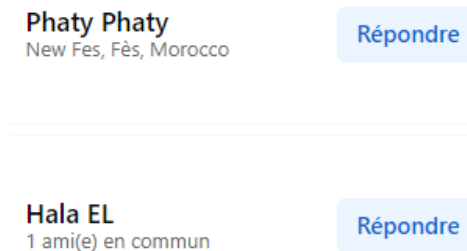


Figure 9. Examples of Certain User Identifiers from Facebook

The active identity of social media users can also be understood from the concept of “Posts” which refers to the act of expressing, publishing, and sharing thoughts with others. Indeed, natural language can now be used to build a computational model of personality traits. Several studies (Golnoosh et al., 2013; Schwartz et al., 2013; Yarkoni, 2010; Golbeck et al., 2010; Hirsh & Peterson, 2009; Chen et al., 2014) have attempted to extract five factors of personality traits from writings and messages shared by social network users on their personal accounts, which are constantly updated. These studies have shown significant associations between the use of natural language and personality traits (Zheng & Wu, 2019, p. 59).

It is also possible to understand the digital identity of social media users and their personalities by analyzing personal photos, which are often published on social networks. Furthermore, the phenomenon of “selfies”, where people take photos of themselves, contributes significantly to this understanding. From a psychological point of view, these selfies reflect a person’s self-image. Nonetheless, they are also posted for others to recognize and appreciate “self” (Chagdali, idem, p. 7).

The following are examples of selfies published on social networks sites:



**Figure 10.** Examples of Selfies

## Discussion

This study attempted to explore different aspects, ranging from profile photos to users identifiers, as well as the evolving dynamics of social media platforms. It is evident that the 2.0 transformation of the internet has enabled individuals to actively create and share their identities, effectively bridging the gap between real-life relationships and the online world (El Yazidi et al., 2022, pp. 6956-6965). Today, users express themselves extensively on social media platforms, often blurring the boundaries between their personal and digital lives. However, this transformation has also created new challenges (Idem, 2022). Presently, users are now engaged in a competition to attract as many

digital friends as possible, forge a positive self-image, and strategically manage their personal online networks. Reputation management on social media further exacerbates social and cultural disparities. In addition, individuals sometimes engage in role-playing and self-presentation, which are more pronounced in chat rooms. These platforms offer a space for textual and visual interaction, allowing a sense of liberation from conventional social rules. The exploration of digital identity reveals a rapidly evolving scene, where users navigate complex online identities, striking a balance between freedom and self-presentation. Digital identity is ever-changing and dynamic, reflecting the fluidity of the digital world, transcending traditional boundaries and allowing users to express their multiple facets.

### **Conclusion**

In conclusion, social networking sites have evolved beyond their original purpose of communication. Today, they are designed according to an interaction policy so as to motivate Internet users to produce unlimited digital traces (reactions, posts, comments, sharing...). This approach fosters spontaneity among users. In other words, the more an individual gets engaged in the network, the more the identity is revealed. Therefore, it can be said that digital technology has introduced a new form of “face-to-face” communication that does not require physical presence (physical body) to transmit messages, ideas, values, and especially to expose one’s self-image. As a result, the freedom of expression given by social networks is preconditioned to divulge an individual’s identity in various aspects including physical, cultural, social, and psychological.

**Conflict of Interest:** The authors reported no conflict of interest.

**Data Availability:** All of the data are included in the content of the paper.

**Funding Statement:** The authors did not obtain any funding for this research.

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