Full Length Research Paper

Digital Sociability and the Construction of Social Links on Social Digital Network in Ivory Coast: A Case Study of Young Abidjanese

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ABSTRACT: The purpose of this study is to understand the communication transformation and digital sociability with digital devices and social media in daily life of young in Abidjan. The study aims to describe the sociability modalities of these young people through the construction of a digital identity conditioning their integration within a peer group community. For this purpose, a case study design was used to understand this social transformation according to participant's views through a virtual ethnography for a period of 18 months on WhatsApp from 2019 to 2021. Then, online and in person interviews allowed to describe participant's online practices of sociability. At the end of the study, it was revealed that young people's digital sociability was a mix of a plural identity, sharing of life experiences generating a hybrid and cultural pluralism. Thus, it is recommended to design a social belonging sustainability using social network sites to provide a better communication between young and adults, eliminate digital literacy gap and provide educational support for a good digital citizenship.

Keywords: Mobile devices - Identity – Young – Digital sociability – Social Media-WhatsApp

INTRODUCTION

Since the decade 90, the digital revolution began with internet and continues to transform the different human activities and social field in Ivory Coast. In 2004, the social media innovation offered a wide range of possibility in politic, economical and socio cultural practices. According to Can and Bardakc, (2022: 351) the advanced digital environments provided by internet technologies had a different extent with the development of mobile devices. So, these digital devices and virtual spaces are transforming and disrupting social relations (Enlart, 2018; Papadakis, 2021). These virtual spaces, popularized at the beginning of the 21st century thanks to the digital revolution, constitute virtual platforms for social interactions and the construction of digital identities. For Ghliss (2019:1), the availability of innumerable mobile devices, offering a variety of functionality also has an effect on sociability. Especially young people, called digital natives, use intensively mobile devices and app to explore social network sites, to communicate share experience and promoting oneself daily (Harari et al., 2019; Wright et al., 2018; Huang et al., 2021). Everywhere, their engagement online with the smartphone represents a social transformation which impact their relationships in real world and with virtual people. All these transformations highlight digital sociability as an alternative that can take place to complement and strengthen formal sociability processes (Katsaris and Vidakis, 2021).

In Abidjan, the appropriation of mobile devices offered the growth of new practices among the young adults. As digital natives, those possessing a good digital literacy and accessibility to connected mobiles devices adopt

new habits, behaviors, practices and attitudes on social media that often relate to daily life and the need for an identity recognition through the construction of a social capital (Straganz and Bork-Hüffer, 2020; Pastor, and Lemos, 2018). However, while the digital sociability of the young in Abidjan can be source of inclusion and wellbeing in virtual community, this fact affects the formal sociability and interaction with parents or their non-connected peers as in the case of WhatsApp (Kaufmann, Straganz and Bork-Hüffer, 2020). Indeed, the young use this mobile chat application for formal and informal activities. Their motivation is often to avoid society policy, get pleasure and build online friendship (Harari et al, 2019).

Problem statement

The problem is to study Social Media advent has greatly influenced sociability and interaction processes of the young, more so in the Covid-19 strike. This study will evaluate social media effects on the young as witnessed in a WhatsApp group in the city of Abidjan, Ivory Coast.

Objective

The study objective is to describe the modalities of use and sociability of these young people through the construction of a digital identity and the social representations conditioning their integration within a virtual group community. For an effective scientific study, a literature review is useful to build a good research background through the discussion of empirical past researches.

Literature review

Ivory Coast is a West Africa francophone country and it biggest city is Abidjan with around 5 million of inhabitants in 2019. In addition, this city has the best digital appropriation rate of the country and young adults are very active on the social network sites. This digital revolution transforms the social interaction and communication of these citizens thanks to the growth of digital literacy. Our study took place in Abidjan, to understand the young sociability practices with digital devices and platforms. However, we needed to write a literature review focused on four past studies (Pastor and Lemos, 2018; Harari et al., 2019; Kaufmann, Straganz and Bork-Hüffer, 2020) for an effective investigation.

In a research about digital sociability practices, Pastor and Lemos (2018) aimed to empirically investigate the new photographic practice through Instagram application in the city of Salvador. They used a qualitative study to point out that the use of meta-texts (hashtags, subtitles and emojis), as well as the relocation data indicate that the photographic practice is based in a data-driven conversational communication (Pastor and Lemos:

2018:10). Their findings focused on process of specialization, process of sociability and process of production of self (portraits and selfies) to underline the digital sociability trends in the target audience practices.

The authors research took place on Instagram and tried to establish the relationship between photography sharing on social media to propose self-identity and they stated that their article found partial echoes in many studies (Pastor and Lemos: 2018:28).

Similarly, Harari et al., (2019) studied the sociability of young adults on social media. Their descriptive research aimed to address the gap in our understanding of how sociability manifests behaviorally in daily life by adopting cutting-edge mobile sensing methods (MSMs) to track, describe, and examine individual differences in people's everyday social behavior patterns (Harari al., 2019: 2). For the authors, their study had several limitations as the characteristics of our young adult samples, the sensors (micro behaviors on social media), technical limitations inherent to the current generation of devices and rapid transformation in virtual world.

Moreover, Kaufmann, Straganz and Bork-Hüffer (2020) questioned the young Adults' disrupted urban experiences and their digital mediation under Covid-19 in the city life. Their qualitative investigation analyzed the online and offline sociability, and social media became a very important fact of urban experience in a context of lockdown. For the investigators (2018:325), referring to young people's online sociability, Thulin, Vilhelmson, and Schwanen (2020: 167) speak of "absent friends," where friendship activities "such as making and updating plans, exchanging and discussing thoughts and experiences, hanging out in groups, confirming feelings, sharing and keeping track of vital events and happenings in each other's lives" are performed online. Even if this research is not mainly focused on digital sociability, it gives lot of details about the sociability management in a context of pandemic through integration of social media in all daily activities.

Huang et al. (2021) research consisted a "Literature Review of Online Identity Reconstruction" to provide an overview of the thematic patterns of existing research. Their scope was to identify why and how people engage in online identity including digital sociability, meta-text writing, predicators and effects of mobile devices uses in users' daily lives. Yet, the authors also stated that their study has limitations because non-English papers, conference proceedings, and book chapters were excluded from the literature search process (Huang et al., 2021:8).

In our empiric study, the investigation took place in a francophone context and we used both English and non-English research papers in our investigation. We retain that digital sociability can be perceived as the sociability that manifests itself through the number of connections of an ego on digital platforms. It also refers to the social practices and relationships that take place online a

through textual, meta-text, photographic publications (Pastor and Lemos, 2018) and the reactions that follow. In Abidjan, a research focused on the young online sociability is required to add a scientific contribution after these past studies and continue to explore the digital revolution impact in the citizen's daily lives.

METHODOLOGY

Research design

This interpretive qualitative descriptive research was carried out to describe the social integration and writing practices of the young in Abidjan to socialize through social media daily. The study objective was to describe the practices and sociability of these young people through social media appropriation for the construction of a digital identity conditioning their integration within a community. For this purpose, a case study design was used to understand this social transformation through virtual ethnography (Hine, 2000).

Hine (2000) argues that the internet, as an object of study for the social sciences, has been theorized in two ways: either as a cultural form or as a cultural practice. It means that the virtual ethnography is appropriate to design our research. In addition, for Ardévol and Gómez-Cruz (2014) ethnographic methods have been used as a research strategy to study uses of the Internet, online social practices, how people engage in networked relationships, and to account for the moral order of their activities.

For example, Boellstorff (2008) used this approach to study players' practices and behaviors in Second Life, a "virtual world" regarding the "actual world" by the "worlding" of different cultural domains (Boellstorff 2008: 18; Ardévol and Gómez-Cruz, 2014).

In this research, we chose virtual ethnography design to study effectively senses of self, belonging, and group socialization shaped significantly by digital media and "cultural artifact". In this study, the investigation took place on WhatsApp, a mobile chat application. The researchers collected the data on this social network site from individual participants' activities and virtual community sharing from a sample of young an Abidjanese (Ardévol and Gómez-Cruz, 2014). Compared with Boellstorff (2008) research design, we could not integrate a virtual community. Yet, we received the recording of the activities of Nobiel, a young abidjanese virtual group from one participant.

Then, we could identify the meta-textual writing methods and socializing modalities from themselves according to their own views through a questionnaire and interview administered to a convenience sample. In the ethnographic approaches, the three main questions designing the research are:

What do people do? How do they do that? What do they say about their practices? As the participants are young digital natives in Ivory Coast, we consider sociability as social representation including three sub patterns as attitudes, behavior and practices. The choice of this pattern included the levers of construction of social links online through the identity visibility markers and networking activities on WhatsApp. In the study, while the online interactivity on WhatsApp were considered a single situation, the views of each participant were handled holistically as a single unit of analysis (Papadakis, 2021: 356).

Sample and sampling techniques

In this case study, we used convenience sampling method to recruit the participants and collect the data. This method was appropriate in a situation where it was difficult to select the participants in a probabilistic approach due to the lack of statistics and the Covid-19 outbreak.

Firstly, the researchers communicated with some young people in order to collect their activities on WhatsApp and identify a young Abidjanese WhatsApp community for a virtual ethnography. It means that we should identify what they do, how they do that and why they do these things.

Secondly, as we could not integrate the target virtual communities, some participants shared with the activities of their communities. With the information and ideas got after this step, we selected the data of a virtual WhatsApp community named Nobiel, gathering young adults of "Lobi tribe". There were more than one hundred members and we could get the activities from active members. In addition, an interview of some participants was required in person and online.

Although we do not have statistics of the number of the young using social media in Abidjan because of the lack of relevant data, we could extrapolate with the national rate. In 2019, there was 4 707 404 people in Abidjan while the national internet appropriation is 18% (Lekingnzima, 2019) and 35.2 of the population is below 15-35 years. Consequently, the extrapolation of these statistics allowed us to give an estimation of the young digital users in Abidjan (Figure 1).
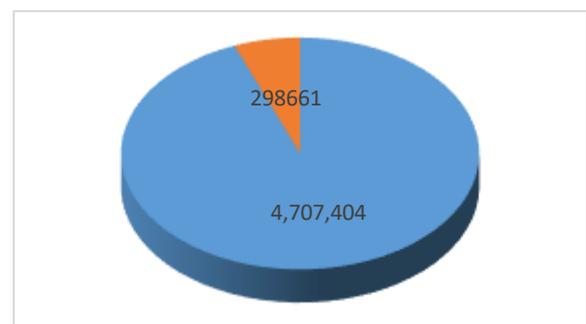

Figure 1: Young digital native population in Abidjan.

Abidjan Young Digital users= 4 707 404 habitants* 18%* 35.2 =298661 young.

In this study, the investigation took place in a WhatsApp group of young people from whom we received a lot of data from participants. So, the number of participants including the WhatsApp group members and the others is around 120. We selected the publications from the virtual community and decided to propose a questionnaire to 12 participants. Below we give the demography of the questionnaire respondents.

In brief, the research was conducted with around 120 young adults' participants engaged on WhatsApp in Abidjan. Twelve of them were selected for the questionnaire and 4 to give more details during the interview. Participants are between the ages of 15-35. The questionnaire and interview participants have an equal number of males and females to get a balanced distribution of the views. Finally, the participants are young Abidjanese, very active on the mobile chat app WhatsApp through their status publications and contributions during exchanges within virtual communities. Our convenience sample is made up of these young urbanites, without distinction of social category and gender, digital natives between 15 and 35 years old (Figure 2).
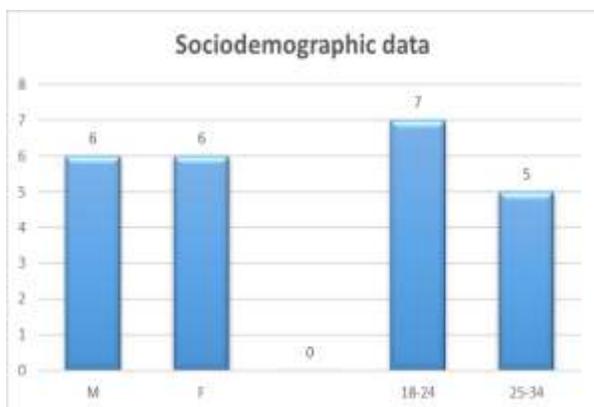

Figure 2: Participants of the questionnaire and interviews.

Data collection

In this study, the researchers used three tools to collect the data.

Firstly, they use an ethnographic observation of individual (status publications) and collective (community content of some participants) for a period of 18 months on WhatsApp from 2019 to 2021. This observation took into account the participants' publications, including images, photos, videos, voice notes, (Lemos and Pastor, 2018) and significant meta-text sharing the daily experience of these young Abidjanese. This young online

participation was related with the mobile devices through their individual accounts and WhatsApp group. So we obtained 520 pages of conversation recording. To avoid repetitions, we selected only some publications from the virtual community conversation recording according to the textual writing methods and contents.

Secondly, the researchers created a semi-structured open-ended questionnaire to determine the opinions of young adults who used WhatsApp to identify their own point of view about their practices online. The literature review on empirical digital sociability past studies allowed to design the online semi directive questionnaire items. For the pretest, we created an online questionnaire on *Google form* and sent it to three participants for an evaluation. The questions were discussed and revised after the pretest to improve the questionnaire according to participant's feedback to change the order and the questions' content, scope, and appropriateness (Can and Bardakci, 2022:357). After the test and revision, the questionnaire form had nine questions.

Demographic information about the participants was included at the end of the questionnaire. So, the questions including *WhatsApp username(s), WhatsApp profile picture, Number of WhatsApp accounts, Reasons of this number of accounts, Frequency log in to WhatsApp account per day, Activities on WhatsApp, Motivation to use WhatsApp, Gender and Age range.*

Final questions related to the research were prepared online via Google Form. Then the revised form was presented to twelve young Abidjanese, equal number of male and female, to collect their views and user practices on WhatsApp.

Thirdly the researchers conducted a semi-directive interview using a semi-directive interview guide in person with four participants in order to identify their point of view regarding their online sociability practices, as well as the relational and identity autonomy that stems from them. The aim is to enrich the results of the online questionnaire in depth, to collect and understand the attitudes and opinions of the participants regarding their individual and collective perceptions of online sociability on WhatsApp.

Data analysis

Ardévol and Gómez-Cruz (2014) stated that digital ethnography incorporates new technologies of recording, analyzing, sharing, and presenting data and results along with new ethical challenges. In this study, the data were processed and compared with empirical research (Gómez-Cruz, 2012). The conversation analysis method was used in the data analysis process because the themes of analysis were not defined before the study. Conversation analysis is a specific method of analyzing qualitative data. Its main purpose is to characterize and

explain the ways in which those engaged in conversation maintain an interactional social order by examining the 'technology of conversation' (Sacks, 1992: 339; Bloor, 2006). Considering the research objective and empirical studies of virtual ethnography (Gómez-Cruz, 2012; Elisenda and Gómez- Cruz, 2014), we have chosen to reorganize the results into three themes and six sub-themes:

1) Digital identity markers (*User name, Profile picture*); 2) Interaction and engagement modalities (*Activities and interaction, writing methods*); 3) Social representations (*Number of WhatsApp account, categorization and engagement frequency*).

Each stage of the results contains data from the questionnaire and a corpus from the interviews or meta-text from the virtual community. These factors allowed to organize the results presentation and provide a clear explanation of the findings with MS word because we did not do a deep statistical analysis of items from the virtual community recording.

RESULTS

Digital identity markers

The majority of respondents (7/12) tend to use their own names. However, there are some who use a pseudonym (3/12) or both as their username (2/12). Firstly, the choice of real name reveals the participant attachment to his real identity and it means that most of the contact on WhatsApp are real known connections. Secondly, the choice of a pseudonym underlined the need to maintain an anonymity to prevent a self-identification by few people from the real world. The advantage is to be able to show oneself differently or take a desire identity (Table 1).

Table 1: User name.

Response	Number
My real name	7
Pseudonym	3
Both at the same time	2
Total	12

For the question about their profile picture, the respondents gave the following answers:

The photo was unanimously chosen by these young people on WhatsApp. However, the use of an avatar remained a secondary choice, leaving the absence of a profile picture at the last rank. It can be explained these verbatims from the interviews (Figure 3).

Verbatim 1: *I put my picture because it is done by most people.*

But often, I use the picture of my business also for my friends and clients.

Verbatim 2: *On WhatsApp, my picture is important to be accepted when I send messages. People can change their name but picture is true identity.*

Verbatim 3: *It is funny to be someone else and have the picture of my favorite singer as mine.*

Verbatim 4: *I am not really interested by profile pictures. I prefer anonymity to discuss with my well known friends only.*
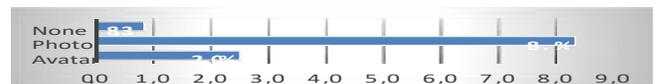

Figure 3: Profile picture.

The young people who were interviewed explained the choice of a profile picture as an identity marker to be recognized by peers and acquaintances. Yet, it is not compulsory and the choice of avatars according to the context, interest and perfect perception of identity allowing to be in the skin of someone else. The digital identity of these young people vary according to their picture profiles, moods and hope. Most of them find it useful to use their own picture because WhatsApp uses phone numbers. So, they need to be identified by others as it is easy for them to use an unknown phone number by their parents or others to communicate and socialize (Table 2).

Interaction and engagement modalities

In term of *Young activities and interactions on WhatsApp,* the findings show that young people in Abidjan used WhatsApp to share documents (11/12), and daily life publications with peers. Call, chat, comments and discussion are the second preference (9/12). The others activities are focused on their business, work, studies and hiring for a job. It means that their interactivity is mostly to develop their personal brand, visibility and recognition with their peers (Table 2). In term of *writing methods*, the "indigenous textual code" or meta-text is preferred by young people online in Abidjan.

Verbatim 5: *25/11/2019 at 00:00- Hbd bro que du bonheur dans ta vie*⬤☺.
Plurisemiotic statement written by a young in French and Idiolect, delinearized with the verbal emoticon (hbd) and emoji, to wish happy birthday to a member of their WhatsApp group.

Verbatim 6: *16/03/2021 at 20:03 -: *A company is looking for 3 QHSE Managers immediately* apply here ☞*http://bit.ly/38LIutv* share the offer.*

Table 2: Young people activities and interaction on WhatsApp

Activities on WhatsApp	Number
Sale of products	7
Discussion with friends	9
Publication on statute	6
Team work	8
Call, Chat, comments	9
Sharing of files and publications	11
Study group	4
Young virtual community	7
Design and project execution	6
Job opportunities	1

The Young use different modes of expression by posting textual as well as multimedia content such as images and videos for sharing information. This informative text includes an emoticon and addressing within the language statement. In short, a meta-text writing by the use of idiolects and de-linearized statements gives rhythm to the discursive content of young people in their writing modalities reflecting their sociability.

Social representations

In term *of WhatsApp account quantity,* the results show that most of the interviewed are users of a single WhatsApp account (10/12) while the others have 2 or more accounts (2/12). In addition, we could collect more information with the open end questions in the questionnaire about their own justification related to this number of account (Table 3). The main justifications are below:

Table 3: WhatsApp account quantity

Response	Number
1 account	10
2 accounts	2
Total	12

- *Nothing (female, 25- 34)*
- *I do business so I use WhatsApp business too (female, 18- 24)*
- *It is sufficient for my activities (Male, 25- 34)   P1*
- *I like it and I have only one phone (female, 18- 44)*
- *That's enough (Male, 25- 34)*
- *By simple personal decision (Male, 18- 24)*
- *I don't have time to manage multiple accounts (Male, 18- 24)*
- *I have only one WhatsApp account because I find it sufficient (Male, 18- 24)*

- *It suits me for now (female, 18- 24)*
- *Personal reason (female, 25- 34)*
- *I have a number (female, 18- 24)*
- *Business and personal life (Male, 25- 34)*

The number of WhatsApp account used by the young Abidjanese varies according to their activities and level of accessibility to the technology, mobile devices and social media. Most of them use only one account to be more engaged in the virtual community, manage their daily and stay connected with others. Yet, the business is another reason to have both a personal and professional account in order to dissociate the two functions during the interactions with peers online. The advantage is to reach more consumers or professional target easily. The inconvenient is the cost and time management in both private and public life. The *Self-categorization* and the need of peer interaction determine the degree of interactivity according to the young participants' opinions from the interviews in this study.

Verbatim 7: *. I have a WhatsApp group for girls, to chat and talk about things between girls. It's so interesting ... we give each other advice and talk about private things in our girl to-girl messages.*

Verbatim 8: Djo*, WhatsApp is too sufficient for exchanging documents, chatting and having fun with friends in our group. On my statuses, I let show a bit and talk about what's going on in my daily life. I also like to comment and share statuses that make me laugh. WhatsApp makes me feel loved and comfortable among friends of my generation.*

On WhatsApp, young people in Abidjan find pleasure in communicating through their writing, statuses, to discuss specific topics related to their social aspirations for a self-categorization group. The participation, interactivity and engaging activities give sense to this virtual community belonging. The WhatsApp group environment is effective to satisfy the need to exchange information, documents, be involved in discussion, and react on the publication of peers for a better interactivity and engagement through social ties.

In term of *engagement frequency*, Young Abidjanese users of WhatsApp are very engaged online and this fact increases their hyper connectivity to interact and participate in online activities with their peers (Figure 4). Similarly, this frequency of online engagement is explained from the respondents' own words:
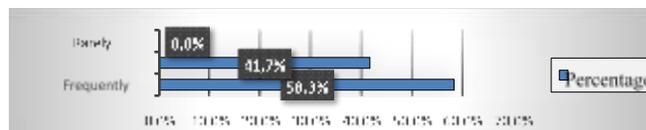

Figure 4: Participation frequency

Verbatim 9: *Every day I have to be online to post, discuss and know what others are doing and, they say, to feel good; when I'm online, I feel connecting with my friends in the group, I make new friends and I feel understood.*

Verbatim 10: *I need to log in to (WhatsApp) for my business and classes. Every day I use Whatsapp to sell my products and to keep in touch with my friends, to chat and have some fun. It's so exciting...*

Respondents find it useful to connect frequently to participate in exchanging and maintaining the online relationship with other peers through regular posts. This hyper-connectivity results in a high engagement in virtual community and less involvement real world life. The social representation of digital sociability is very important for these young people who find it useful to have interaction, promote their daily activities and increase the individual visibility in a virtual community of peers on WhatsApp. In Abidjan, this social transformation is an innovation leading to social belonging.

A discussion and interpretation of these findings is required in the next section of this article to understand more on the question of digital sociability and the construction of social ties on social network sites in the case study of the young Abidjanese.

DISCUSSION

The question of the digital sociability of the young has been supported by many researches showing that smart devices, technologies and social media transform the social belonging (Deh and Glođović, 2018; Kaufmann et al., 2020; Harari and al. 2019; Lemos and Pastor, 2018). Our study objective was to describe the modalities of use and sociability of these young people in Abidjan through the construction of a digital identity and the social representations conditioning their integration within a group community. In the sections below we discuss our findings regarding previous empiric studies and researches.

Reconstruction of identity towards a new social experience

Many young people in Abidjan are participating in daily online activities through social media like WhatsApp to construct and reconstruct their identity according to the real world and virtual user experience (Huang et al., 2021).

This appropriation of the social network sites is to communicate, share, interact and promote personal interest affecting the social identity construction and belonging (Lemos and Pastor, 2018; Huang et al., 2021; Wright et al., 2018). Indeed, social identity refers to the status of the individual, but also to the group membership

(Deh and Glođović, 2018; Ridout, Campbell, and Ellis,2012). In our research, the mobile devices growth in Abidjan allows more young people to inscribe themselves in an identity mutability and a collective way of life perceptible through the reconfiguration of signs associated with the virtual user profile and participation modalities. It means that the accessibility to a variety of mobile devices, internet and social media app pushes young to be active and engaged online to build their own identity and socialize with peers modifying the traditional perception of social integration (Wright et al., 2018).

Our findings underlined that the identity markers permit to the young Abidjanese to be socially defined according to his or her identity attributes and determine his or her group integration in real and virtual space. According to Huang et al., (2021:3) when engaging in strategic self-presentation or identity experiment, individuals intentionally build an online identity that is different from their offline identity to some extent. Similarly, our study confirms that through the social network sites, young people in Abidjan have the possibility of inventing one or more identities to conform to the real or desired self in order to release themselves from social conformity or the critical sight of parents and whole society normative policy. For the participants, the real identity is used to be identified by both real and virtual friends in order to establish a link between online activities and real world. However, it appears that young Abidjanese tend to use their own name and/or a pseudonym on WhatsApp to enrich the interactions (Ghliss, 2019; Huang, et al., 2021). They do so in order to be visible or anonymous according to their social representation of themselves, others and the world. Yet, according to Cardon (2019), Huang et al., (2020), the anonymity that characterizes these virtual spaces allows the choice of pseudonyms and multiplies identities able to affect the visibility and sociability. Thus they tend to feel that there is less adult supervision online, which enables them to experiment with new values, ideas, and behaviors to a greater extent (Huang et al., 2021).

In addition, the findings underlined the strong propensity to use a profile picture expressing young people need of symbolic visibility. The use of one or more profile pictures, which are similar or different from the real self produces a plural social identity reflecting the singularity of young people seeking new life experiences (Pastor and Lemos, 2018). Thus, the desire of a social change is perceptible through contributor's publication who want to be quite original to build online relationships.

For Thulin, Vilhelmson, and Schwanen (2020: 167) and Kaufmann, Straganz and Bork-Hüffer (2020: 326), this online sociability speaks of "absent friends," where friendship activities "such as making and updating plans, exchanging and discussing thoughts and experiences, hanging out in groups, confirming feelings, sharing and keeping track of vital events and happenings in each other's lives" are performed online. This originality is a

criterion for expressing an original identity assimilation through the adoption of distinctive signs of identification, via their profile in order to interact with their peers and networks of contacts (Lardellier, 2016). This need for self-recognition generates heterogeneity in the friendship list of these young Abidjanese in search of greater visibility through a multiplication of connectional links (Cardon and Smoreda, 2014). Similarly, Jacklin-Jarvis and Cole (2019) evaluated that digital media mainly serve as a way for maintaining friendships and exchange of information, because for participants, the virtual identify and perception of own self by peers is a lever of social belonging and integration.

Moreover, our research results revealed that social belonging is developed through the positive self-representation of sustained activity from young people in order to exist and intensify their digital social links (Harari et al., 2019; Kaufmann et al., 2020). This lifestyle is useful for their integration and recognition as active member of the group, or citizen of the virtual community.

This generates a plural identity socializing on various online profiles (Huang et al., 2021; Wright et al., 2018). Furthermore, it consists in the sharing of life experiences, collective actions also involve the dissemination of 'mobtext', meta-text or textual content developed through a mobile interface (Ghliss, 2019; Pastor and Lemos, 2018) through statuses or community posts. This practice is closely linked to individual or group activities in accordance with personal interests or those of community members.

In sum, the social media and mobile devices provides new practices and social representation engaging young Abidjanese in a digital sociability that is the source of a plural identity. As Wright et al., (2018) research our findings similarly stated that the reconstruction of oneself identity online is a favorite practice of young people. This heterogeneous and group-based construction of the self in a virtual space reproduces the main features of the relational life of individuals.

Hybrid sociability and cultural pluralism

The sociability includes cultural components influencing the young people engagement in their WhatsApp virtual community or on their individual story page through the promotion of a subculture (Ardévol and Gómez-Cruz, 2014). Our findings insist on the double presence of the individual culture variation both online and offline. The hybrid sociability took form as young people in Abidjan create a performing plural identity and social belonging with peers online that differ with their real world identity. On social network sites, they present themselves in the way they want to be appreciated and to influence others with positive sharing daily experience (Michikyan et al., 2015; Kang and Wei, 2019; Huang et al., 2021). It means that they are citizens of two worlds which provide them with relationships, motivating their engagement with

peers in online and offline worlds. According to Deh and Glođović (2018:104), taking into account the speed of information flow, as well as the digital platform as the principle of global networking, the influence and importance of this subcultural construct, is very high in the acquisition of identity of young people. For these authors, it represents a simplified and purified picture of a subculture that defies what is common and neglects the elements which are a deviation from the real society practices. In other words, the identity construction and social representation of young in Abidjan lead them to adopt a culture of hyper connectivity, self-promotion and visibility in subcultural virtual environment.

In addition, findings showed that the hyper-connectivity of young people in Abidjan results from their accessibility to mobiles devices (telephones, smartphones, tablets, and computers) and digital platforms which allows to insert themselves into an online community corresponding to their values or interests (Huang et al., 2021). This digital mastery of young people in Abidjan is a cultural revolution through the growth of digital literacy knowing that the digitalization is a challenge. WhatsApp motivates them to organize collaborative actions in physical and virtual space.

Through this self-representation on social networks, the young Abidjanese are engaged in collective activities, sources of a singular identity recognition. It is a mobile youth culture according to the researches of Abeele (2016) Kaufmann, Straganz and Bork-Hüffer, 2020) and so on. These young users of these relational platforms feel the need to connect with each other regularly in order to participate in informational, relational and conversational exchanges giving sense to their daily existence through this culture. This consist mutualization of experiences thus engaged interactions in their peer virtual groups and the behavioral habits of the young involved them in this hybrid social belonging (Katsaris and Vidakis, 2021). Compared to the strong ties established in the real world, weak ties reinforce group's belonging among young people. This practice maintains balance in this young alternative society that conforms to their expectations and desires to be accepted despite their differences. They are thus part of a "mobile" or "nomadic" culture where one can connect anywhere and at any time with everyone, as long as one has a smartphone, a tablet or any device connected to the Internet (Ghliss, 2019; Abeele et al., 2018).

Furthermore, the use of meta-text writing is their favorite form of expressing experience sharing within the collective hybrid social belonging. Young Abidjanese use this form of group writing to codify their statements and claim a plural cultural identity through the association of linguistic and extralinguistic signs. According to Pastor and Lemos (2018: 20), the reinforcement of sociability come from subtitles (simple texts, hashtags and emojis). So, the young of Abidjan find an appropriate framework to share their emotions and resort to a language specific

to their culture through a multimodality of writing and enunciative forms on social network sites. Similarly, Paveau (2017), Pastor and Lemos (2018) studies found that the meta-text writing method provide to the virtual interaction the same characteristics as in person sociability.

In brief, our results found echo with many past empiric researches underlining that young people practices online are more relational than cognitive amplifying the visibility and prominence young people daily relational interactions on social media (Pastor and Lemos, 2018; Harari et al., 2019; Kaufmann, Straganz and Bork-Hüffer, 2020; Huang et al., 2021). The modalities of expression of this sociability aimed at social integration and can be seen as source of a hybrid identity, a lever for mutual understanding and the construction a social belonging. However, the findings of our study have some limitations related to the research context and the cons of the digital addiction of some young people in Abidjan through social media appropriation.

Media education for balancing digital sociability and study limitations

The question of sociability in young people appropriation of social network sites requires a deep reflection on the pros and cons of this societal disruption. In fact, the social media represent a useful tool of socialization and social belonging in daily personal and professional activities. The positive aspect is that WhatsApp is a traditional online platform allowing to do business, interact with peers and also apply blending learning in education (Can and Bardakci, 2022; Papadakis, 2021; Deh and Glođović, 2018). For example, this platform is useful for pedagogy continuity and hybrid learning, innovate in business and maintain social belonging wherever. Their usage of relational platforms such as WhatsApp to communicate with their peers implies frequent connectivity in order to be active in the news and to participate in group life as a member. Through these spaces, Young people seek to release themselves from traditional social constraints and from the feeling of incomprehension or exclusion felt in relation to the normative parental society. This statement explains that the acts of presence and visibility on WhatsApp are part of a self-narrative, related to group values to establish cognitive and socio-affective links relevant to the individual's socialization process (Michikyan et al., 2015; Straganz and Bork-Hüffer, 2020; Huang et al., 2021). However, even if WhatsApp is a useful platform to increase the social expression and virtual identity construction, the sharing of extremely represent an important issue as the virtual identity influences also the real world activities with peers and others (Pastor and Lemos, 2018). According to the question about the digital identity and practices, the use of pseudonym and avatars breaks the real world identity recognition.

Consequently, the individual's identity is hidden and that allows them to be engaged in some reprehensible practices often. For example, Huang et al., (2021) found in their studies that the young digital sociability can affect their interactivity with parents (Michikyan et al., 2015), adopting a less coherent sense of self presentation and present their false self-resulting in addiction or loneliness. Similarly, on WhatsApp, many young people in Abidjan share private life aspects including fake news, sexual exhibition, dating and so on. Even if our investigation virtual community was safe, the sharing of extremity and forbidden activities can represent one of the most negative aspects of this social integration in a virtual group without a policy respecting society laws. In addition, in online socialization, there are risks of cyberbullying, internet trolling able to affect negatively real world identity. Asa a recommendation, an education to the social media usage is consequently required to empower young Abidjanese belonging on social media like WhatsApp. This digital literacy education empowers young people's communication skills for a better sociability in real and virtual world (Papadakis, 2021). This social media education is required to balance both the real world and virtual sociabilities

As limitation, our research was carried out with 12 participants for our interviews and a virtual ethnography in a virtual community of around 120 members in Abidjan. Due to the size of the sample and the conversation recording from the virtual community, we did not use statistics to analyze the 520 pages of conversation recording young people from the studied virtual community. Consequently, a deepen analysis of these conversation recordings and the increasing of the participant numbers could be source of another effective research on this topic.

In brief, the presence of young people on WhatsApp in Abidjan reflects their deep aspiration for greater identity visibility through interactions and sharing with their peers. For Cardon (2019: 176) hyper-visibility is acquired by those who tell their life stories, give their opinions on all topics and accumulate new contacts in their friends list (Jacklin-Jarvis and Cole, 2019); Pastor and Lemos, 2018). Thus the pros and cons, online relational platforms, as WhatsApp, become a symbol of social representation and instant connectivity seen as an expression of belonging to a digital society that these hyper-connected young people or generation of constant contact (Kaufmann et al., 2020).

Conclusion

This virtual ethnography study highlighted the predictors of online sociability of young people in Abidjan with mobile devices on Social Network Sites for social belonging through a subculture. The multiplication of identity and the cultural pluralism multimodalities on WhatsApp disseminate the feeling of group belonging

and young wellbeing in a hybrid world. The digital sociability of this category of the urban population covers the real and virtual space in a constructivist, conversational and participatory approach of young people thanks to the modalities of these materialized relational spaces through mobile devices. In conclusion, the present study has some limitations that needed to be underlined, particularly with regard to the generalization of the results: the limitation of the corpus, cultural differences in the use of social networks sites and the unique focus on the WhatsApp platform. As a result of the study, it is recommended to design a social media belonging sustainability education to provide a better relationship between the young, adults, citizens in a transformative world, eliminate digital literacy gap and technological infrastructure problems, and provide technical and psychological support to the young for a good digital citizenship appropriation practices.

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