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## REAL DANGER OR URGENT NECESSITY? YOUNG GHANAISANS' PERSPECTIVES ON SMARTPHONE USE IN RELATION TO ACADEMIC SUCCESS

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### ABSTRACT

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Aim/Purpose	In this article, the subjective perspectives of young people in Ghana on the use of digital media are elaborated. The aim is to make the positions of young people visible in the often adult-dominated discourse on digital media and to overcome adult-centered considerations in academic and public debates. In addition, the focus on young people from the Global South is intended to help make their underrepresented voices present in this discourse.
Background	Digital media devices and Internet access are conditional on people's social, economic, and educational participation. Many people in the Global South in particular are not yet granted such access. For children and young people worldwide, the educational opportunities offered by digital media are associated with potential threats to mental health and well-being. However, young people's views on digital media are rarely addressed, especially in the Global South.
Methodology	Based on a qualitative thematic analysis of responses to open-ended questionnaire questions, young Ghanaians' views on smartphone use and how it affects academic success are examined.
Contribution	By focusing on the subjective perspectives of young people, especially from the Global South, voices that have hardly been heard in the discourse on digital media are made audible. This should help overcome the dominant adult-centered perspectives in this discourse.
Findings	For young people in Ghana, digital media are part of their everyday lives and often necessary to succeed at school. At the same time, they are concerned about

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	the dangers, e.g., from overuse or cybercrime, for which they have few strategies to deal with. In their answers, they refer to socio-culturally specific discourses and values as well as to generational hierarchies that they perceive and deal with, which go far beyond the topic of digital media use. This makes clear the social tensions in which the debate about digitalization is embedded.
Recommendations for Practitioners	Young people's knowledge of and perspectives on digital media is an important resource for learning to use them in an emancipated way.
Recommendations for Researchers	Through the increased use of qualitative research designs, deeper insights into the reflective appropriation of digital media can be gained by people in general as well as children and young people in particular.
Impact on Society	The need for the implementation of an intergenerational dialogue on digital media use becomes evident.
Future Research	Future research should recognize young people as experts in their own right on the issue, explore ways to include their perspectives in the discourse on digital media use and work with them to harness the future potential of the technology and avoid risks.
Keywords	digital media use, global south, young people's perspectives, generational hierarchy academic success

## INTRODUCTION

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### *SIGNIFICANCE OF DIGITAL MEDIA IN EVERYDAY LIVE AROUND THE GLOBE*

The everyday use of digital media is a global phenomenon and, for many people around the world, even a necessity for entering the labor market, organizing one's family and social life, and for their own education. In addition, general access to digital media and people's digital media literacy is seen as important for a country's economic and social development (DW Akademie, 2020). As a result, at least in the affluent parts of the world, almost everyone, young and old, owns a smartphone and other digital devices (Medienpädagogischer Forschungsbund Südwest, 2022 [for Germany]; Ofcom, 2022 [for UK]; Rideout et al., 2022 [for USA]).

Regarding the use of digital media, and in particular smartphones by children and young people, scientific and public discourses seem to be contradictory. On the one hand, digital media use is seen as a necessity for education and social participation – especially by policymakers and the digital industry (Lankau, 2017). On the other hand, possible dangers for cognitive, emotional, or social development, and physical and mental health as well as for academic outcomes are emphasized (e.g., Baert et al., 2019; Extremera et al., 2019; Pereira et al., 2020; Przybylski & Weinstein, 2017; Yang et al., 2019).

What both perspectives have in common is that they would rarely ask young people about their own views, experiences, and activities related to digital media, forcing an adult and often utilitarian view of young people's digital media use. However, focusing on young people's perspectives can reveal important insights beyond the dichotomy of benefit and danger, for example, that not the time but the type of use is decisive for well-being (Kleeberg-Niepage & Degen, 2022), or that young people are on their own in their struggle for media literacy (Kleeberg-Niepage & Perzy, 2022), or that digital tools can facilitate (re)entry into communication with others, especially for vulnerable young people (Koch & Brandt, 2020).

In addition, academic discourse on digital media often focuses on (young) people in the Global North (e.g., Livingstone et al., 2023; Moroney et al., 2023), while few studies address the role of digital media in the daily lives of people in the Global South – such as in sub-Saharan Africa (see next

section). The focus is often on the macroeconomic level, for example, when institutions such as the World Bank (2016) warn of slow digital development in the Global South further widening the gap between industrialized and developing countries. Studies on young people's actual digital media use in sub-Saharan Africa, and specifically West Africa, are rare, and studies on their perspectives on digital media are even less available.

Given these research gaps, we conducted a study to investigate both the availability and actual use of digital media by junior and secondary high school students in Ghana, West Africa, as well as their perspectives, views, and opinions on these media. The latter refers to the position and demands of interdisciplinary childhood studies to include the views of children and young people in the research process and to focus on their perspectives as a research goal (James & Prout, 2015; Wells, 2018). This is all the more important as there is barely any published research on children and young people from the Global South (Draper et al., 2022), and their perspectives are significantly underrepresented in political, social, economic, and academic discourse.

In this article, first, an overview of the current state of research is given with a special focus on Ghana before the methodological procedure is described. Then selected basic results are presented on the use of digital media and how the participants view the role smartphones in particular play in academic success and thus in education. Finally, in the discussion, the social discourses the participants refer to are addressed, which go beyond the actual topic of digital media and provide insights into young Ghanaian's perceptions of social values and their own position as youth in their society.

### ***YOUNG PEOPLE AND DIGITAL MEDIA IN GHANA***

Since the World Bank's warning of slow digitalization in 2016, the situation in Ghana has changed fundamentally. While only 14 percent of Ghanaian adults (18 years and above) owned a smartphone in 2014 (Pew Research Center, 2015), that number more than doubled to 35 percent in 2018 (Pew Research Center, 2018), and has increased massively to date. In 2020, the authors of the Media Information and Literacy Index based on representative surveys in six African countries even concluded that: "15-25-year-old Ghanaians are on the digital fast track" (DW Akademie, 2020, p. 23), because almost 80 percent of this age group owned a smartphone and 70 percent had access to the Internet at least once a week. Furthermore, according to the same study, 56 percent of the respondents go online every day using a smartphone, whereas about half as many, 27 percent, use a computer, i.e., PCs, laptops, or tablets, for this purpose. Looking at the 58 percent of all Ghanaians who, according to a survey by the World Bank (2020), were online at least every three months in 2020, young Ghanaians seem to be comparatively internet-savvy. For many young people, however, mobile data coverage is difficult to afford. In Ghana, only 31 percent of young adults (18-24 years) can afford mobile data at any given time (Ichikowitz Family Foundation, 2022).

For young people – not only in Ghana – the use of digital media and particularly the Internet often promises access to information, knowledge, and education, and thus a solid basis for their future lives and careers. Apart from whether digital media and the Internet can keep such promises, opportunities for access and use are often unequally distributed. In Ghana, women and people in rural areas have less access to the Internet than men and people in urban areas (DW Akademie, 2020). Smartphone use also depends on education and age, as well as access to mobile applications and money transfer systems – the latter again more in urban than in rural areas (Adams et al., 2020). Usage patterns also vary by income, with high-income people more likely to use applications that require the Internet, while low-income people are more likely to use their smartphones for making phone calls and listening to the radio (Okae, 2018) – activities that do not require Internet access and cause no related costs.

The use of smartphones for learning activities by Ghanaian university students has been the subject of several studies, showing numerous benefits of use for both on-site and distant learners (Darko-Adjei, 2019; Sarfoah, 2017; Twum, 2017). However, smartphone use in high schools, or among

children and adolescents in Ghana, has rarely been examined. One study focuses on the impact of mobile phones in high school, but from the perspective of university students (Butakor, 2021), and another study on the influence of social media on senior high school students, but without specifying the devices used (Asare-Donkoh, 2018). One reason for neglecting high school students as a target group for research could be the ban on mobile phones in high schools, and technical and vocational institutions, imposed recently by the Ghana Education Service (Aggor et al., 2019). Another somewhat related reason might be that many adults – parents or teachers – are concerned about possible misuse or overuse of smartphones and about possible dangers of the Internet (e.g., Markwei & Appiah, 2016), and therefore try to discourage children and young people from using them, as is implicitly expressed by the notion that young people do not need a smartphone (e.g., National Communications Authority, 2020). This could prevent potential dangers of smartphone use, but at the same time, a joint debate on the informed use of media becomes impossible. As the study of Baiden et al. (2020) implies, such a debate is urgently needed because, despite prohibitions and bans, young people in Ghana can use their smartphones to gain access to forbidden areas of the Internet and be exposed to serious dangers of the cyber world.

## METHODS

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### *STUDY AND FOCUS OF RESEARCH*

Conducted in 2019, before the COVID-19 pandemic, the study aimed to gain insights into the availability, amount of time, and way of using digital media, as well as the personal opinions on digital media of Ghanaian junior and secondary high school students (12-20 years), thus concentrating on an age group that has been under-researched so far. To achieve the research objective, we decided on a questionnaire that combines a quantitative with a qualitative approach (for further information, see the next paragraph; the complete questionnaire can be obtained from the authors upon request).

### *QUESTIONNAIRE*

In the first two sections of the questionnaire, a series of closed-ended questions focus on demographics (e.g., age, gender), technical aspects such as whether someone owns a digital device that allows access to the Internet, or at least has access to digital devices and the Internet whether at home or school, as well as details on the daily use of these devices (e.g., What do you use the smartphone for? Answer options: to phone, chat, surf, play games, take photos, listen to music, watch videos/films, other). Some of these closed-ended questions contain open-ended options to explain details of the chosen answer option (e.g., Do you use the smartphone while you are learning (for instance, while you are doing homework)? Answer options: yes, no, with the follow-up question: if yes, what for ...?).

To reveal the participants' subjective perspectives on digital media, especially smartphones, they were confronted with five alleged adult concerns and one final question on the future role of digitization in their lives in the third section of the questionnaire and asked for their opinion (open-ended questions, e.g., Adults like parents or teachers sometimes say that using smartphones would reduce other activities like sports, helping in the house or reading. What is your opinion on that? Or: Adults like parents or teachers sometimes say that using smartphones would prevent young people from learning to write proper English. What is your opinion?) These alleged concerns arise from the mainstream research in this area which often tests (negative) hypotheses about the impact of smartphone use on various aspects of children's and young people's social lives, mental health, or learning outcomes (see the Introduction section). This article highlights one such concern about the negative impact of digital media on academic success and how students evaluate smartphone usage in relation to this particular concern (see data analysis below).

## ***SAMPLE***

Since private schools make up a significant part of the Ghanaian education system, both public and private schools were included in the sample and the results were compared. In Ghana, according to the latest UNESCO Global Education Monitoring (GEM) Report 2021/2 (UNESCO, 2021), non-state schools of different types – international schools, low-fee private schools, often faith-based, almost a fifth of them unregistered, and predominantly in urban areas – have increased significantly in number in the last decade.

The sample consisted of 592 junior and senior high school students (228 males, 350 females, 14 without specifying gender). The three-fifths of female participants in the study may indicate that not only has the gender gap in secondary education almost closed within a generation, as the GEM Report notes (UNESCO, 2021), but may also be reversing. For the analysis, two age groups were formed: 12-14 years, which corresponds to early adolescence, and 15-20 years, which corresponds to middle and late adolescence. Of the participants, 42 percent were between 12 and 14 years old, 58 percent were between 15 and 20, 50.2 percent attended junior high school, and 49.8 percent senior high school.

## ***DATA COLLECTION***

A total of 12 high schools were surveyed for the study, eleven in Winneba – a coastal city and the administrative capital of the Effutu Municipal District – and one in nearby Potsin – the administrative capital of the Gomoa East District. Both are in the Central Region, one of the sixteen administrative regions of Ghana. Permission for the research was applied for and granted by the respective district of education office. According to the regulations on site, separate parental consent was not required.

Six hundred questionnaires were distributed to 6 junior high schools (2 public, 4 private) and 6 senior high schools (3 public, 3 private). The junior high schools were randomly selected by drawing lots. The senior high schools were the only public and private schools in the study area. Fifty questionnaires were administered in each school.

Two trained research assistants and the second author were present during data collection. The respondents were informed of the purpose of the research and assured of confidentiality and anonymity, and that their views would be respected. All respondents who took part in the study did so voluntarily and with informed consent. Only participants who had explicitly agreed were included. As the survey took place in schools, teachers also assisted in explaining the instructions to the participants but did not influence the data collection process. Completing the questionnaire took between 25 and 30 minutes for each participant.

## ***DATA ANALYSIS***

The closed-ended questions of the first two sections of the questionnaire were analyzed using descriptive statistics. Statistical significance is based on the Pearson Chi-Square test with a p-value less than 0.05. To interpret statistical significance as to its theoretical and practical meaning, effect sizes were computed as well, Phi for 2 x 2 tables, and Cramer's V, or V for short, is used to indicate the strength of association for contingency tables 2 x 3 or larger. All effect sizes in parentheses are phi values except for the two V values, which are denoted by the addition of the letter V. With reference to Cohen (1988), effect sizes can be interpreted as follows: scores between 0.10 and below 0.30 indicate a small association, between 0.30 and below 0.50 indicate a medium association and 0.50 and above indicate a large association.

For the analysis of the responses to the open-ended question, Reflexive Thematic Analysis (Braun & Clarke, 2021) was applied, which is explained in detail below.

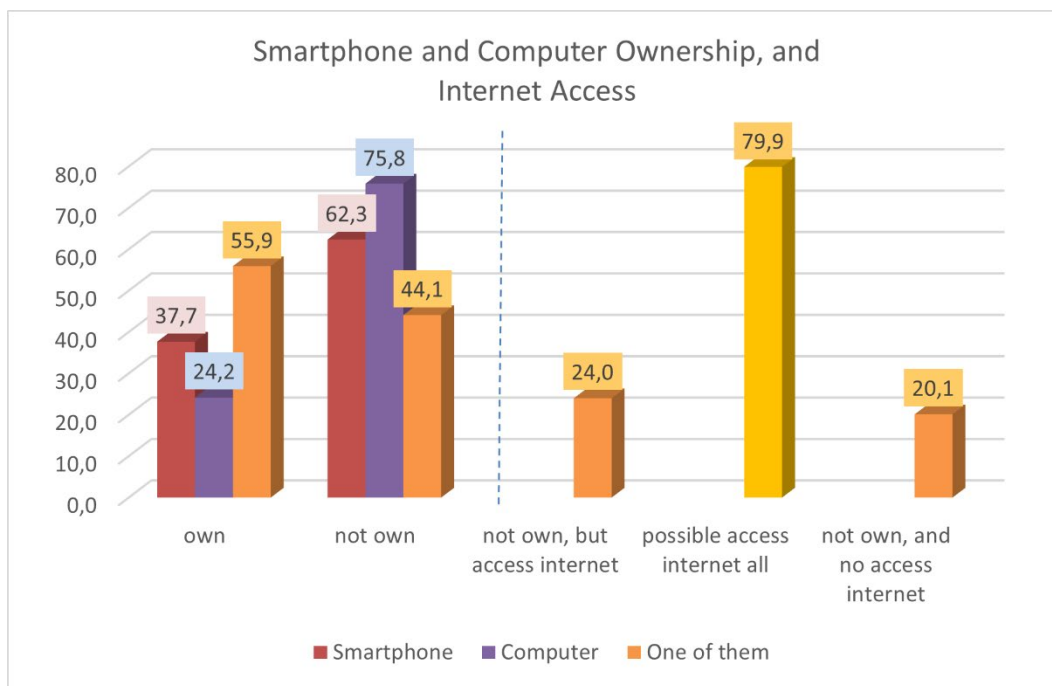
## RESULTS

### *THE USE OF DIGITAL DEVICES AND THE INTERNET AMONG 12–20-YEAR-OLD GHANAIAN HIGH SCHOOL STUDENTS*

According to the results (see Figure 1), almost 38 percent of the 12-20-year-old respondents own a smartphone, 24 percent own a computer (including laptops, notebooks, tablets) of which 6 percent own both, i.e., around 56 percent own at least one device. Of the approximately 44 percent without a device, 24 percent have Internet access at home or school, meaning that 80 percent have Internet access while 20 percent have not.

Compared to the 38 percent with the data from DW Akademie (2020), the difference to almost 80 percent who own a smartphone seems large. One reason could be the different age groups surveyed – 12 to 20 in our survey versus 15 to 25 in the others. Research supports the notion that more resources are spent on mobile phones with growing age (Akanferi et al., 2014; Doyle et al., 2021; National Communications Authority, 2020; Okano et al., 2022). In fact, our results seem to reflect this notion in public and private schools alike, as the older age group owns significantly more smartphones than the younger one (0.19). Also, more male students possess smartphones (0.11).

Figure 1 shows smartphone and computer ownership and its relation to possible Internet access. Included in the diagram are those respondents who do not own any device but have access to the Internet at home or school, as well as those without any access to the Internet. We did not ask for the specific device used to go online. In line with the above-mentioned finding, females are significantly less online, and males own significantly more smartphones (0.11).

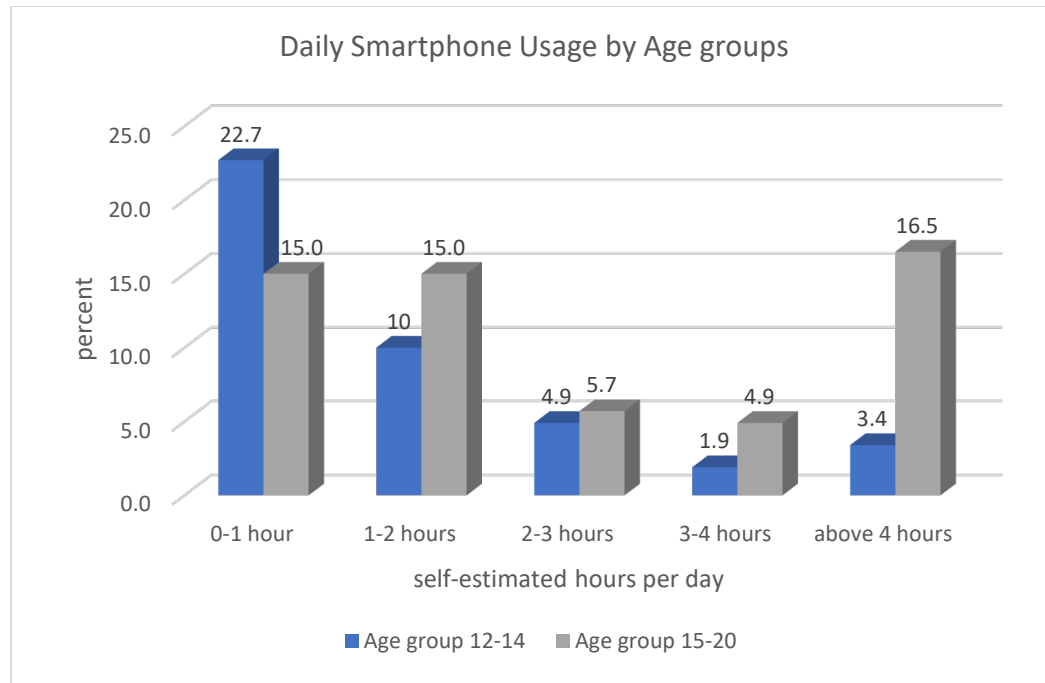


**Figure 1. Smartphone and computer ownership, and Internet access**

The average time that the participants spend with a smartphone is 2.5 hours a day or 150 minutes. This seems plausible in view of the rapid pace of global digitization, but no Ghanaian study could be found that underpins this self-assessment. A lower average time also seems possible. A study from Michigan, USA, for example, compared self-reports with smartphone log data and showed that

especially heavy users tend to overestimate usage time (Deng et al., 2019). Twenty percent did not answer the question, which corresponds to the 20 percent without digital devices and Internet access.

Students in the older age group ( $V=0.33$ ) and public schools ( $V=0.21$ ) spend more time using a smartphone, with no gender differences. Figure 2 shows the differences between the two age groups. The values for 15–20-year-olds (in the right column) are always higher, sometimes quite clearly, except for the category with the lowest number of hours on the left.



**Figure 2. Daily smartphone usage by age**

When asked what they would mainly use the smartphone for, Figure 3 gives the details without differentiating between age groups, gender, or public and private schools. Listening to music is the top activity, followed by playing games, watching videos/films, and taking photos.

As for differences in smartphone use by age group, gender, and public or private school, more students in the older age group use it to make phone calls (0.09), chat (0.31), and surf the Internet (0.12), whereas more students in the younger age group use it to play games (0.18). More male than female students surf the Internet (0.09), whereas more female students take photos (0.10). Also, more public-school students use smartphones to chat (0.16), surf the Internet (0.19), take photos (0.09), listen to music (0.10), and watch videos/films (0.13).

These results could indicate that activities that require Internet access are dominant. However, since at least theoretically all activities could also be carried out without Internet access (e.g., by downloading the corresponding music, games, or films to the device), this assumption would have to be confirmed by further research.

When searching the Internet with a smartphone or a computer (no distinction was made as to which device was used), Figure 4 shows that most participants across all age groups use it for information about the world (news), followed by school-related usage and entertainment.

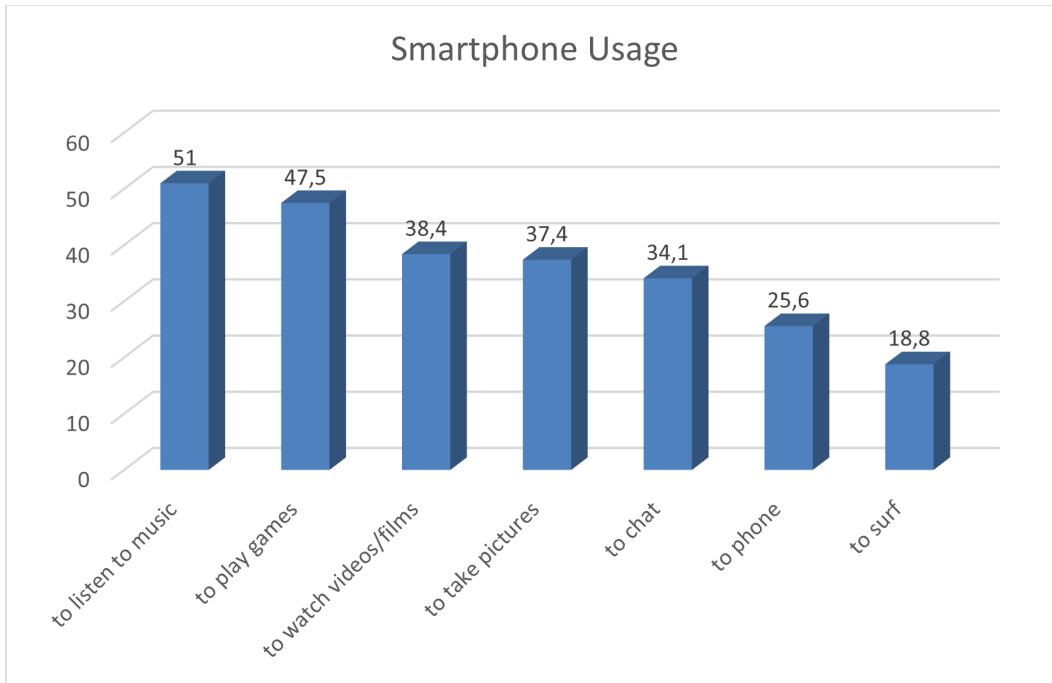


Figure 3. Activities with the smartphone

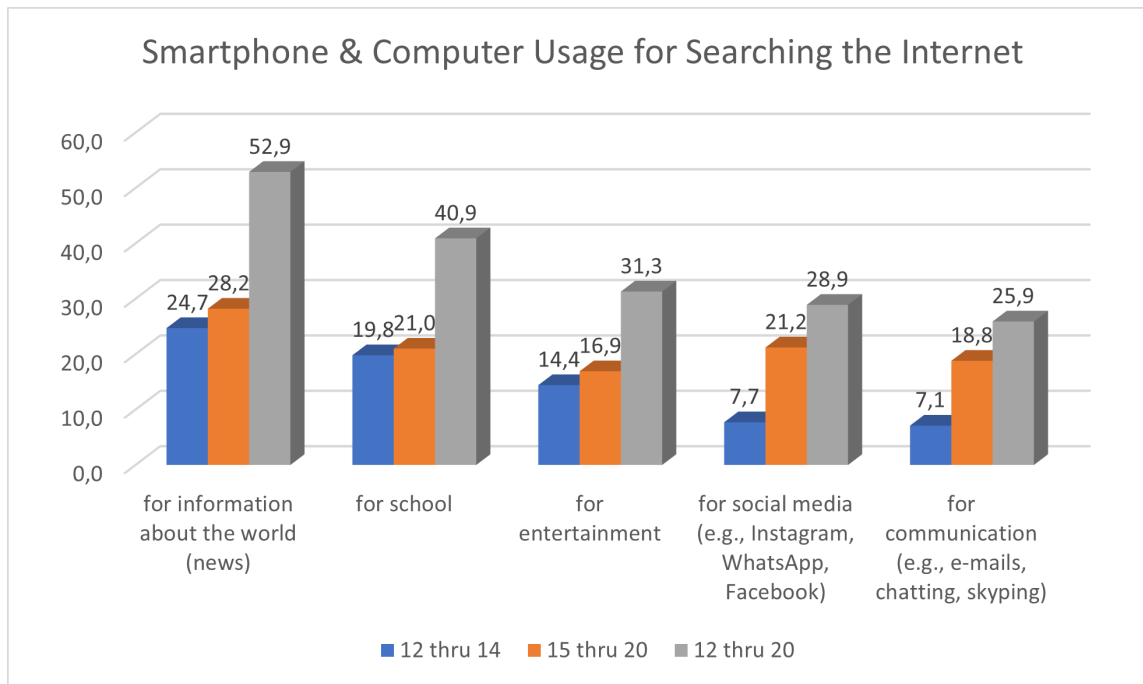


Figure 4. Activities when searching the Internet with either device

Just over 18 percent did not answer the question, an unaccounted-for difference of 2 percent from the 20 percent who do not have a device or Internet access. On the other hand, the data confirms that a good 80 percent, and possibly more, have access to the Internet, which roughly corresponds to the 80 percent of smartphone owners and the 70 percent with weekly access cited by DW Akademie (2020), even if it is taken into account that the comparison group in the DW study is about 5 years older and smartphone ownership also increases with age.



## ***WHAT GHANAIAN YOUNG PEOPLE THINK OF ADULT CONCERNS ABOUT SMARTPHONE USE AND ACADEMIC SUCCESS***

With our open-ended question – *Adults like parents or teachers sometimes say that using smartphones would harm academic success. What is your view on that?* – we wanted to create space for participants' points of view. The analyses of their responses required a qualitative method that can elaborate both *explicit* content and *implicit* discursive references. We opted for the Reflexive Thematic Analysis (RTA) according to Braun and Clarke (2013, 2021).

### **Data analysis and interpretation**

The focus of Reflexive Thematic Analysis is not on the reduction of data material, which is central to other methods of content analysis, but was not a practicable strategy in our case given the short data sets. Rather, themes are constructed in which, across the entire material, recurring meanings relating to the research question are bundled as patterns: “Pattern-based analysis rests on the presumption that ideas which recur across a dataset capture something psychologically or socially meaningful” (Braun & Clarke, 2013, p. 223).

Reflexive Thematic Analysis is a step-by-step process: (1) the transcription of the verbal data (in our case the transfer of the handwritten data into a digital format), (2) the generation of the first codes, (3) the search for themes, (4) the review of the themes, (5) the definition and naming of the themes, and (6) the preparation of the report (Braun & Clarke, 2006). These steps ensure a systematic approach, although for Braun and Clarke (2013) a good analysis is not primarily the result of rules being followed, but the result of analytical sensitivity, i.e., the ability for theory-based data interpretation and the reconstruction of meanings beyond the obvious, and their contextualization.

The analytic process was based on the quality criteria of qualitative social research, such as conformity to rules, transparency, subject adequacy, and intersubjective comprehensibility (Mayring, 2015; Steinke, 2010). First, codes were developed in several steps from a random sample of 20 percent of all answers – inductively – with which all answers were then coded in MAXQDA. Examples of main codes were *relevant people* (e.g., children, adolescents, parents, or teachers), *content/use* (e.g., non-school related content, or for homework), *influence/effects* (e.g., spending too much time with the smartphone, or being distracted by the phone while learning), or *evaluations* (e.g., pros and cons of smartphone use).

The codes were then reviewed and suggestions for central themes related to our research question were developed. Considering the *explicit* (semantic) and *implicit* (latent) levels of meaning (Braun & Clarke, 2006, 2021), we constructed *three cross-code themes*, which represent recurring patterns of meaning: I. Is the smartphone a necessary tool or a harmful distraction (academic success with or without the smartphone)? II. The absent call for balance. III. Show me how you use your phone, and I can tell you who you are (the moral of the smartphone). All themes are presented below using data examples from our participants.

### **Theme I: Is the smartphone a necessary tool or a harmful distraction (academic success with or without the smartphone)**

Theme I captures the participants' negotiations about the perceived advantages and disadvantages of smartphones in relation to school-based learning. This contrast is organized and reflected in two sub-themes (I.1 and I.2).

**Sub-theme I.1: The smartphone is a necessary tool.** Smartphones are described by numerous participants as an invaluable necessity for homework, research, group, or project work, and thus for academic success:

No, because it helps us to get a better result from that and it helps us to know what is going on in the world. (Case 84, female, 17, SHS, public school)

No, it helps us to research. So, if we don't have access to it, how will we do our homework?  
(Case 152, female, 12, JHS, private school)

It looks as if some school-related tasks cannot be solved without a device. In addition, for these young people, smartphones improve results, increase motivation, and can even enrich lessons at school with additional information or explanations:

I don't agree because we do not have all the textbooks, so we sometimes search the Internet.  
(Case 144, female, 13, JHS, private school)

I disagree with this statement. This is because you can use your smartphone to search for things teachers said in class which he/she didn't explain. (Case 323, female, 13, JHS, private school)

Apparently, these arguments include criticism of the school or the teachers for poor equipment or teaching methods – deficiencies for which the students' individual smartphone use is intended to compensate.

**Sub-theme I.2: The smartphone is a harmful distraction.** In their answers, the participants contrast smartphone use with academic success (often described as learning, doing homework, and studying) in two ways:

Yes!! Because students also spend or waste their learning hours with their phones doing unnecessary things while they have homework to do or notes to read/learn. (Case 288, female, 16, SHS, public school)

I agree with them because they will not learn, not sleep early, they will not watch good videos, but pornographic material. (Case 114, male, 12, JHS, private school)

On the one hand, the smartphone is not seen as a tool suitable for learning, but as a time-consuming distraction (e.g., through chatting) that impedes concentration (on books) and motivation (for learning), impairs cognitive abilities (e.g., memory) and well-being (e.g., through sleep deprivation or addictive behavior), and can even be a vehicle for negatively regarded activities (e.g., watching porn, peddling, cheating, or hacking). As to why the phone could be so dangerous remains vague, there are just a few hints of age being relevant with students: "I agree, this is because we are too young to be able to detect bad things, so we are endangered ..." (Case 518, female, 14, SHS public school), implying some kind of natural maturing towards judicious use over time. This corresponds to the lack of any ideas on how to reduce these dangers (besides a total ban):

They are right and at the same time wrong, because using the smartphone helps you to learn the things you do not know and at the same time distracts you from learning. (Case 122, male, 14, JHS, private school)

In my view, it can only harm academic success when you use it unwisely watching unnecessary videos and films, but with researching you can achieve better. (Case 229, female, 17, SHS, private school)

On the other hand, the smartphone is seen as a tool that could be useful in learning but is still a potential distraction; for example, when messages arrive while learning or students prefer activities or content that are not school-related. Using social media, gaming, chatting, or viewing pornographic material, are specifically identified as such activities or content. These are frequently labeled as *unwise*, *unnecessary*, or simply *wrong* or *bad* and can even have negative effects beyond actual use:

It's true. Because whenever the teacher or parents tell you to study, or when the teacher is in the class, or you are writing exams, the child will fail because it has been thinking about what it did on the smartphone. (Case 40, female, 12, JHS, private school)

The phone almost seems like an actor in itself, luring out of its mere existence and creating negative effects.

The two opposing views, as represented by the two sub-themes, lack the idea that people could balance or manage smartphone use, i.e., use it, but also make time to learn or block out distractions, e.g., messaging services while learning.

### ***THEME II: THE ABSENT CALL FOR BALANCE***

Theme II addresses the question of how to use the smartphone sensibly for schoolwork and learning while avoiding negative effects such as distraction or wasting time. Our participants at least implicitly deny the possibility of such a balance by directly rejecting smartphone use, or they imply the need for balance by normatively demanding that individuals resist opportunities for distraction. But how people can resist and acquire the skills or abilities to do so often goes unanswered:

Yes, because some people use smartphones to do unwanted stuff. (Case 45, male, 15, JHS, public school)

Yes, it could harm academic success depending on the student's interest and the ability of the student. (Case 262, male, 18, SHS, public school)

Some students attribute negative effects only *to others*, implying they can avoid negative effects through some unspecified personal characteristics or abilities. The question of who can teach young people how to use smartphones appropriately also remains open. Moreover, the idea that such usage could be taught and learned – either at home or school or through peers – appears to be largely absent from these answers, with few exceptions:

I don't agree with that. I think that smartphones will help students to make researches and do other things. Parents or teachers should rather supervise or make sure that they do not overuse or watch pornography with it. (Case 380, female, 15, SHS, private school)

Smartphones wouldn't harm academic success because parents at home can tell their kids when to use their smartphones and what to use them for. (Case 243, male, 17, SHS, public school)

Yes, but this also depends on how the child has been taught in the house. Because there are some parents who never allow their children to get access to a smartphone, so they cannot misuse it. (Case 232, female, 19, SHS, private school)

In addition to the banning strategy demanded of parents, the need for guidance and advice on beneficial use is addressed, for which again parents are held primarily responsible. Teachers are mentioned only once in the entire set of answers in this context – possibly reflecting these students' experiences that the smartphone is not part or object of school:

No, this is because when there is a specific time limit of using smartphones, students would not be academically poor. (Case 246, male, 16, SHS, public school)

The proposal to limit smartphone use to avoid negative impacts on academic success is the only concrete idea of how smartphone use and school learning could coexist.

### ***THEME III: SHOW ME HOW YOU USE YOUR PHONE AND I CAN TELL YOU WHO YOU ARE (THE MORAL OF THE SMARTPHONE)***

Theme III deals with the specific ways in which smartphone activities are evaluated or judged. These young people seem to have a clear moral orientation regarding different kinds of smartphone usage:

It will not harm only if they use it the right way. (Case 476, male, 16, SHS, public school)

It can be true in the sense that most people use the smartphones for other wrong purposes rather than educational. But on the other hand, using it wisely will not harm but rather enhance academic success. (Case 538, female, 17, SHS, public school)

Proper, meaningful, or clever use of the smartphone is associated with school and learning-related activities, which are contrasted to all other types of use:

Yes, because in some cases students do not use the smartphone for relevant things. They sometimes use the Internet to search for pornographic videos, to hawk people and also make unnecessary calls. (Case 136, female, 15, JHS, private school)

Oh, it is true because sometimes people spend most of their time on the phone rather than to learn their books and also use for unnecessary things like pornographic sources and fraud, etc. (Case 294, male, 18, SHS, public school)

I would say that using smartphones would sometimes harm academic success. Because if you use the smartphone badly, like playing games, watching bad videos on the Internet, it will cause harm to academic success. If you use them for learning and doing research, this will not cause harm to academic success. (Case 29, male, 12, JHS, private school)

Wrong, inappropriate, or unnecessary use of smartphones refers to watching pornographic films, cheating on people, or talking to boyfriends or girlfriends. Such apparently reprehensible activities also include gaming, chatting, or using social media in general. Not only close-to-criminal or sex-related activities are objected to, but also those that serve entertainment or communication purposes. While the former is considered bad, the latter is seen as a waste of time better spent learning for school.

## **THE SMARTPHONE AS THE SUBJECT OF INTERGENERATIONAL NEGOTIATIONS IN CONTEMPORARY GHANA**

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The information provided by the Ghanaian respondents on existing devices and times of use reflect the results of national and international research, which point to the growing importance of digital media across the globe as well as in sub-Saharan Africa and Ghana in particular (e.g., Adams et al., 2020; Ichikowitz Family Foundation, 2022; Porter et al., 2016).

For the Ghanaian high school students in our sample, digital devices, and especially smartphones, are a significant part of their daily life. Although only about half of these young people own either a smartphone or another digital device (laptop, tablet, or computer) by themselves, around 80 percent have access to such devices after all. The same applies to Internet access. The average time users with online access spend on these devices – according to their own estimations 2.5 hours per day – indicates quite intensive usage. Thus, junior and senior high school students in Ghana are by no means digitally disconnected.

Ownership and usage time increase with age, which may reflect, among other things, the attitude of Ghanaian parents that minors should not own such devices (National Communications Authority, 2020). The gender gap in ownership and time online is consistent with other studies (e.g., Pew Research Center, 2018), although girls have caught up in school attendance and now attend junior and senior high schools at the same or even higher rate than boys.

The importance of digital media for school and learning is already evident in the use of the Internet. While smartphones as such are mainly used for entertainment, Internet access serves broader purposes: searching for information about the world (news) and for school were the two most common activities. The demands of young people for more access to and use of smartphones therefore seem justified.

In addition, their views relate to current social discourses in Ghana, which go beyond the actual topic of digital media or smartphones. In their answers, these young people frequently refer to a discourse of efficiency regarding how to use one's time. For them, the main negative effect of smartphone use is a potential lack of time for homework and school-related learning activities, which are obviously necessary for academic success. Since smartphones were not allowed in school at the time of data

collection (Asare-Donkoh, 2018), these answers only refer to the time outside or after school. Apparently, this time is supposed to be used intensively for academic purposes with smartphone-induced distraction as a possible danger. Since high school in Ghana ends in the late afternoon and non-boarding students must often help around the house (Acquaye, 2021), they have limited time to do their homework. Furthermore, the responses suggest that the idea of leisure and recreation, with or without a smartphone, does not seem to exist. Chatting, playing games, using social media and even calling are not advocated. Smartphones seem to only (be allowed to) serve utilitarian purposes like academic success.

These negotiations on the relationship between smartphone use and academic success also provide insights into how these young people perceive the generational relations in their society. On the one hand, the descriptions of the harmful potential of smartphones read like the entire list of adults' concerns regarding digital media and the Internet. This can either be an indication that our participants position themselves as minors who are dependent on the rules of adults, or an effort to appear already grown-up. Either way, this seems to reflect the generational hierarchy in today's Ghana, where children and young people – especially when they are in school – are subject, if not subordinate, to the directives of adults due to their financial and emotional dependence (Acquaye, 2021; Twum-Danso Imoh, 2013). On the other hand, the emphasis on the various benefits of smartphones for their academic success could be read as a subtle strategy to convince adults of the usefulness of smartphones, given the importance of education in Ghana. In this way, they would not have to openly oppose adult opinions; for example, that young people do not need a smartphone at all (National Communications Authority, 2020) but would still adhere to the given values. The price for this is the total devaluation of all non-educational smartphone use as bad and harmful. Watching pornographic videos was especially condemned here, which in turn may refer to guidelines adopted by adults and religious authorities. The question of why porn is so harmful to young people – and not (also) violent videos or games – remains open, but it may relate to a social taboo on the subject of sexuality experienced by young Ghanaians.

Finally, the participants seem to be aware that the beneficial use of digital media, especially smartphones, i.e., the use of potential and the avoidance of disadvantages, does not happen by itself or automatically. Besides hoping to possess the necessary qualities for such balanced use, they even demand guidance and supervision from adults, especially parents. On the one hand, this could in turn indicate that young people defensively withdraw into a subordinate position and adopt the views of adults. On the other hand, this demand for instruction could also be due to a lack of experience and a feeling of being left alone with this device, which is often viewed critically by parents or considered unnecessary. In part, and perhaps because of this feeling of being left alone, young people even join in calls for a ban. However, bans and abstinence demands are not only likely to be ineffective but also hardly lead to a balanced approach – as is the case, for example, with sex education (Bourke et al., 2014; Goldfarb & Lieberman, 2021).

We are aware that our study has limitations. First, conducted in just one region of Ghana, our results may not be representative of the country, given the large disparities between urban and rural areas and between southern and northern Ghana. Yet, the consistency between our results on digital media ownership, accessibility, time spent, and consumption of content and other national surveys shows that our participants are by no means exceptional in this regard. Therefore, some generalizing statements should be possible, even if hypothetical, and require further investigation. Second, data collection in schools was effective in reaching enough participants. However, the school context, with its own sometimes hidden rules, directions, guidelines, and expectations, can interfere with students' free, unbiased responses, especially to open-ended questions. Therefore, data collection outside of the school context should be considered in future research. Third, research in socio-cultural contexts with which researchers are unfamiliar requires reflexivity and consideration of certain assumptions. In our case, two researchers from the Global North and one from the Global South jointly analyzed the available data and discussed the implications, paying particular attention to

cultural sensitivity. Nevertheless, we are aware that as a team we also speak from a certain perspective (academic world). However, there is also an opportunity for different perspectives on the data, as culture-specific perspectives and possible blind spots often only become visible through an external contrast. Another limitation is that, e.g., students, parents, and teachers may overestimate or underestimate the amount of time students spend on digital devices. More research that clearly distinguishes between (self-)assessments and actual measurements of usage times is needed and could support dialogue between students, parents, and teachers.

## **LET'S TALK ABOUT THE SMARTPHONE: THE NEED FOR INTERGENERATIONAL DIALOGUE**

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Our findings reflect that young Ghanaian high school students not only have at least access to digital devices and the Internet but are also quite sensitive to the pros and cons of using digital media.

The pros refer to the importance and high status of education in Ghana, which is considered the basis for a professional career and thus for a socially and financially beneficial life in the future. To achieve this goal, time must be used efficiently, without distractions, but also without leisure activities and rest, which is an explicit right of children according to the respective UN Convention.

By emphasizing the importance of smartphones for education and school-related learning, the participants also, at least implicitly, question the ban on smartphones in Ghanaian schools – which has recently been reconsidered by the Ghanaian Ministry of Education, at least for senior high schools (Buktakor, 2021; Hammond, 2021) and the perspective of adults who consider smartphones unnecessary for young people. Besides, the education argument for smartphones reveals their knowledge of social values and how they can use them to convince adults without the need for open resistance. The latter would be a violation of the generational order of Ghanaian society. The pros also contain a noticeable criticism of school and teaching methods, the deficits of which must be compensated for by individual use of digital media.

The cons, in turn, reflect young people's awareness of the generational order in which adult views have authority and might make sense to adopt. But they could also indicate an urgent need for support to develop a balanced use of digital devices that are here to stay and cannot be banished from young people's lives.

Our results point to a need for intergenerational dialogue about digital media in Ghana that goes beyond banning strategies. The latter not only do not work (according to our study, around 80 percent of our participants have access to digital devices and the Internet anyway) but can also get worse if young people cannot learn how to use digital media sensibly in terms of usage times, content, and self-determination. Recent calls by the Ghana Education Service (National Council for Curriculum and Assessment, 2020) to improve media literacy in junior high schools could initiate important steps in this direction. Yet, for these debates, the perspectives of young people are a necessary and valuable input, since they will be the ones who will live their adult lives in a digitized world. Given the importance of making the voices of young people from different regions of the world heard in digital media discourse, more research is needed on their perspectives in both the Global South and the Global North. In addition, cross-cultural studies could reveal socio-cultural differences as well as commonalities in the challenging path to media literacy. By surveying young German people at the same time, using our questionnaire, we already know that the feeling of being alone with the challenges of digital media is such a commonality. However, in contrast to their Ghanaian peers, German youth do not mention access to porn as a digital threat. At the same time, they assume that a balanced use of digital media is possible, but they see themselves as primarily responsible for this (Kleeberg-Niepage & Perzy, 2022). A systematic cross-cultural analysis by the authors is currently in progress.

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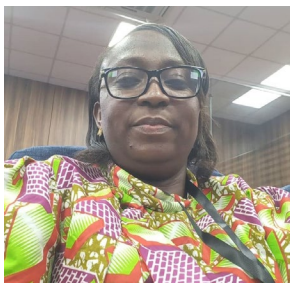
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