Research article

The Effect of Smartphone Use on Children's Behaviour and Attitudes

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Abstract.
The 21st-century technological advances, especially the Internet-based services, have tremendeaously changed our lives. Young children today have easily access to smartphones and gadgets and their dependence on them is relatively high. There is no denying that technology has greatly helped educators and learners in carrying out remote and distance learning during the COVID-19 pandemic. However, this has also opened the doors for the children to several inappropriate online applications such as tik-tok, YouTube, and online games. Recently, it was found that the content shown in various games that children were playing were unsuitable for them and some even triggered aggression and indifferent attitude towards parents. This study investigated the relationship between children's addiction to smartphone use with particular focus on Android users and their general attitudes and behaviour. A systematic literature review was conducted for related articles published between 2017 and 2021 on lens.org and between 2016 and 2021 in DOAJ. Based on the results, the researchers recommend parents to assist their wards while they're using a smart phone or a computer, limit their use of gadgets, establish gadget-free areas, and teach them the importance of self-restraint.

Keywords: Android generation, moral formation, COVID-19 pandemic

1. Introduction

The world is still hit by a pandemic that has been prolonged for almost two years with the coronavirus outbreak (covid-19). The spread in December 2019 is not much different from flu accompanied by ISPA or respiratory tract disorders to cause death [1]. Indonesia is one of those affected by the virus. News from JHU.CSSEE exceeds the number of one million who have tested positive for COVID-19 in Indonesia. Most people are terrified to see so many affected and imagine death. So that in our brain, we think to keep away from all dangers. Still, feelings of worry and anxiety distort the process, including shifting or changing the rationality approach strategy to avoid risk [2]. With maximum effort, the government and which are trying to suppress its spread through policies in

overcoming the pandemic by [3]. Temporary closure of places of worship, educational institutions, trade, entertainment venues, recreation areas that have the potential for crowds, social distancing [4]. The COVID-19 pandemic has significantly impacted several fields, including the world of education and industry. Changes in learning from traditional to digital, all felt by many parties from students and parents, teachers and principals. The government has given rules for Work From Home, physical distancing, schooling from home from Early Childhood Education to Universities, making all activities carried out remotely or online at an unspecified time in an effort to reduce the spread of the virus in children. Temporarily closing educational institutions and other public spaces is a mitigation measure that effectively implements social distancing [5].

During a pandemic like this, Android devices or smartphones have a significant role to support daily activities [6]. We can find any information on smartphones via the available internet network [7] [8].

Many people realize that the presence of technology cannot replace the role of the educator in learning and the formation of identity in children's character. With online education or automatic distance learning, children and parents must master and understand the use of Android. In not too long, children can quickly master Android and are free to access it [11] and roam the virtual world [9]. Children no longer focus on learning, feel lazy because they feel bored in dealing with it, and are more active in trying other more exciting features and applications. Children spend more time playing online digital games [12] or video games [13], tick-tock, movies and websites that are inappropriate to watch, so it is undeniable that what they see or hear will be imitated by children. Children are more individualistic, including no longer being sensitive to the surrounding environment. Even getting advice is reluctant to listen. The effect on children's behaviour and the character appears to be shifting. Society is experiencing a moral crisis [9] [10]. Psychosocially it will require individual and further attention, especially in using gadgets or Android [14] and how to find patterns to shape children's morals.

2. Methode

To complement this research, we collected journal articles from the lens.org, Sinta 1 and DOAJ sites. By using the keywords android generation, moral formation, and the covid pandemic to be able to document and review all articles. The articles that have been collected closely with keywords are 29 articles published in the period 2016 to 2021. In the next stage, the researcher categorizes articles related to the android generation

in shaping morals again after the covid pandemic, then for new literature, and the work of developers in several fields. From a systematic review the methodology has been adopted depicted in Figure 1.
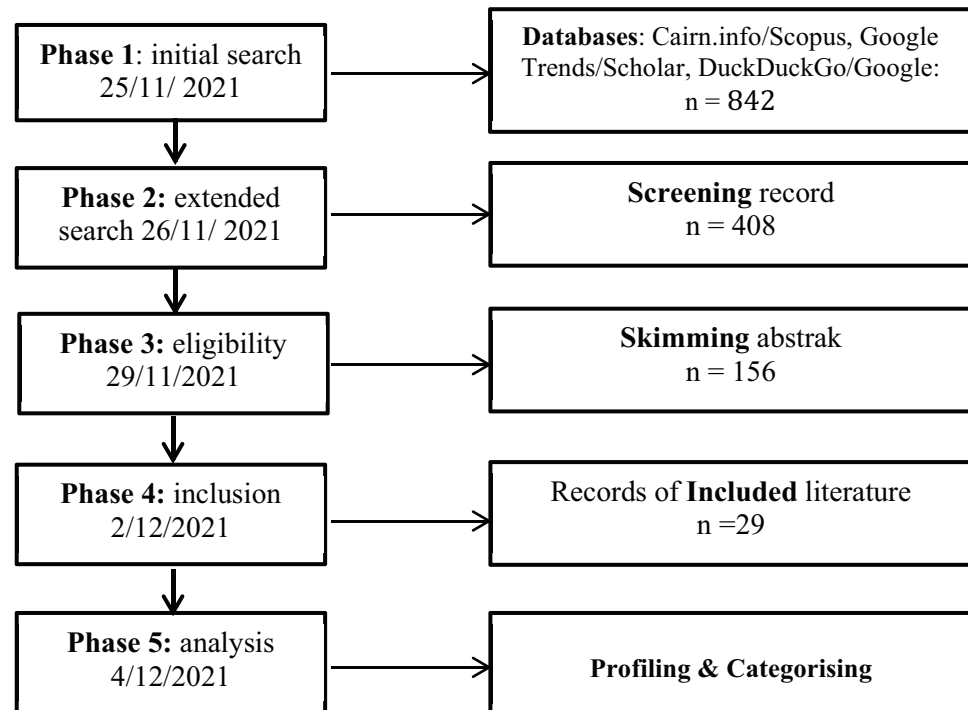
Phase 1: initial search 25/11/ 2021	→	**Databases**: Cairn.info/Scopus, Google Trends/Scholar, DuckDuckGo/Google: n = 842
Phase 2: extended search 26/11/ 2021	→	**Screening** record n = 408
Phase 3: eligibility 29/11/2021	→	**Skimming** abstrak n = 156
Phase 4: inclusion 2/12/2021	→	Records of **Included** literature n =29
Phase 5: analysis 4/12/2021	→	**Profiling & Categorising**

Figure 1: Systematic Overview of Prisms.

There are phases of the research methodology as follows:

1. Step 1 (identification): found 842 articles using several keywords: "moral + Education" and the second "moral + ambition."

2. Step 2 (Screening): From the first screening, approximately 48.49% of the first stage papers were found to be irrelevant (408) because they were out of context or scope. In the next stage, a more focused search can be done by using a combination of more specific keywords, namely "moral formation" + education, and "child morale" + ambition.

3. Step 3 (Eligibility): The result of 842 is reduced to 408 by analyzing the abstract from the document. Relevant studies to be maintained.

4. Step 4 (Inclusive): the remaining (156) in the present paper in a structured and systematically recorded format. It has now been read, and the final weeding process removed all but 29 papers.

5. Step 5 (profile creation): 29 sources that are considered relevant to be profiled with the research topic and stored for analysis have been detailed in the table.

3. Finding and discussion

Through the journey of the pandemic to date, it has had a huge impact on education in Indonesia; all activities in schools were forced to be closed or stopped, from face-to-face to be replaced with PJJ (Distance Learning). PJJ must be done by children by accessing the internet at any time in a short period. The use of the internet is expected to facilitate the online teaching and learning process. The distance learning process has a positive impact, namely encouraging children to learn independently and use the relationship between parents and children [15] [16] .

In addition, PJJ has a negative impact in the form of threats to children who are easily influenced by video games or online games. Childhood and adolescence are indeed in an unstable phase and tend to imitate what they see or hear. They play tick-tock, dance, often ignore parental orders and advice, and are prone to children being loud [17], talking dirty, getting angry quickly, don't care about their environment [7], lots of content that is inappropriate for children to watch. Or teenagers. Media access has a relationship with the risk of sexual experimentation with teenagers [7].

According to Nahar at Akurat. Co (2020), children have no intention of trying negative things on the internet. But they are still influenced by the content and indirectly lead them to negative actions[18]. So, it is necessary for the family to play a role in prevention efforts by assisting when PJJ takes place and can help children complete learning tasks [19]. Thus the child does not act outside the wishes of parents and teachers.

Based on a search engine related to the moral formation of the android generation of children after the pandemic, they found the following articles:

We obtained the 29 journals above from lens.org by grouping them according to existing keywords, that :

1. Android + generation,

2. moral + formation,

3. pandemic covid.

There are stand-alone discussions related to keywords, namely:

1. About Android and the like [16] [17] [21] [25] [26]

2. About Morals [18] [28 [29]

3. Covid pandemic [2] [3] [10] [7] [21] [22]

4. As for other journals, there is a strong connection between Android, Moral and Pandemic. [1] [4] [5] [6] [8] [9] [11] [12] [13] [14] [15] [19] [20] [23] [24] [27]

TABLE 1: Related Search Results Articles Android generation, moral formation, pandemic covid.

Articles Android generation, moral formation, pandemic covid	Moral Formation	Android Generation	After the Pandemic
"Effect Of Institutional And Pandemic Influence On Selecting Engineering Institutions Under The COVID-19 Pandemic Situation"[3]			
Host-Based Detection And Analysis Of Android Malware: Implication For Privilege Exploitation [6]			
Computerized Method And System For Providing Customized Entertainment Content.[8]			
"Automated Test Generation For Detection Of Leaks In Android Applications" [9]			
Theory, Measurement, And Future Research Directions [21]			
Social And Technological Aspects Of Disaster Resilience [22]			
Understanding Of Android-Based Robotic And Game Structure [27]			
Lessons For Business, The Finance Industry And Policy Makers [1]			
Epidemic Of Fear: Cause And Effect [2]			
"Preventing Problematic Internet Use During The COVID-19 Pandemic: Consensus Guidance [4]			
Pembelajaran Pada Masa Pandemi Covid-19 [5]			
'Finding My Own Way': The Lived Experience Of Undergraduate Nursing Students Learning Psychomotor Skills During COVID-19," [7]			
The Development Of Spiritual And Moral Qualities Of The Individual As The Basis For The Formation Of The Civic Position Of Students [10]			
Copperdroid: Automatic Reconstruction Of Android Malware Behaviors," [11]			
More Than Just A Trivial Pursuit [12]			
A Comparative Analysis Comprising 2 Years Of Pre-Pandemic Data [14]			
Changing Trends In The Outpatient Dental Visits During The COVID – 19 Pandemic In A Tertiary Care Hospital [15]			
A Survey On The Detection Of Android Malicious Apps [16]			
Context-Aware System Service Call-Oriented Symbolic Execution Of Android Framework With Application To Exploit Generation [17]			
The Mediating Role Of Constructs Representing Reasoned-Action And Automatic Processes On The Past Behavior-Future Behavior Relationship [18]			

TABLE 2: Table continued.

Articles Android generation, moral formation, pandemic covid	Moral Formation	Android Generation	After the Pandemic
Peran Orang Tua Dalam Mendampingi Anak Menggunakan Media Sosial Di Tengah Pandemi Covid-19, [19]			
Morality System And Method For Video Game And Methode Forcreating, Story [20]			
the Problems of Online Learning: the Role of Parents During the Covid - 19 Pandemic [24]			
An Android Mobile RC4 Simulation For Education, [25]			
Game Learning To Optimize Learning In Disaster Area [26]			
Device And Process For Instructing Children In Goal And Succes [28]			
Prophetic Parenting Sebagai Model Pengasuhan Dalam Pembentukan Karakter (Akhlak) Anak [29]			

3.1. The Role of Parents

The family has the first and significant role in fostering a family in religion, morals and character[20]. The family environment is the starting point for adulthood. Especially in today's era, parents have a lot of time and role in guarding against the hedonism style and the negative impact of globalization [21]. Parents spend almost every day with their children and plenty of time directing and motivating.

Amid the Covid-19 pandemic, social media dramatically influences children, mainly. Often we find parents will buy a super-sophisticated cellphone or Android with the desired model. HP can be positive or negative. They almost every day interact via HP. Through tasks including interacting with their friends via Android and spending time with gadgets [22][8]. The hope is that to minimize these negative impacts; it is necessary to have direct assistance from parents, set a good example for children, limit the use of gadgets, establish gadget-free areas, schedule the use of cellphones, do not provide full access, provide activities for children appropriate, provide direction and teach children the importance of restraint.

3.2. School Policy During Pembelajaran Jarak Jauh (PJJ)

With a joint meeting through a zoom meeting, a school policy has been formulated, a regulation setting regarding the results of a discussion with many opinions, views and considerations of school principals, teachers, committees, parents and supervisors

regarding the use of android in the distance learning process (PJJ) [23][24]. Schools give full rights to the learning process of students to use Android as a learning medium. Accessing teaching materials, learning videos, doing assignments and accessing learning games to ward off student boredom [25]. However, there needs to rule in using Android according to their portion and not accessing others. Second, the school's policy is to provide education [26][27][28] Through zoom meetings, classrooms, google forms for evaluation, and scheduled discussions, parents know their children's activities. Thus parents are expected to be able to supervise and accompany children so that children continue to interact well and be monitored [29].

4. Conclusion

In the conditions of the Covid-19 pandemic, children use the internet more often, which is very helpful in learning activities. Still, behind that it also has the potential to encourage children to do harmful things from online games, playing tik-tok, accessing content that is not suitable for viewing on the internet. Specifically, students need assistance from parents and are assisted by school policies related to the use of Android in learning. Thus the child does not act against the wishes of parents and teachers.

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