

A SECURE SOCIAL NETWORKING APPLICATION FOR PRIMARY SCHOOL KIDS IN MALAYSIA: KIGGLES!

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ABSTRACT

This study investigates parents, guardians, and teachers' perceptions of the gadget utilization for social networking among their kids, particularly the primary school children during the Covid-19. The study conducted a comparative analysis on available social networking applications to determine the safety and risk level. Interviews feedback imply that an adequately designed social networking application for young users and serves the concerns of the parents, guardian, and teacher on the safety of children, socially, physically, and mentally, is needed. The results proposed some features to be given attention in attracting the children into learning and engagement. This study outlines the elements of a secure social networking application user-friendly to the kids and parents, the 'KIGGLES!'. The features of a colourful layout and fun learning activities will benefit the children. The novelty of the application is mainly three; 1) limits in accessibility time, 2) safety and privacy screening, and 3) tracing, tracking, and monitoring system for parents on children access and progress. It is the potential to be commercialized with extended features that align with Malaysia Education Blueprint.

Keywords: Social networking app, Education Blueprint, Covid-19.

1. INTRODUCTION

In Malaysia, the Movement Control Order (MCO) was enforced in March 2020, resulting in the closed-down of schools and requiring immediate attention as the health of the children and parents are at stake. There are three main problems related to childhood development during the Covid19 pandemic; 1) excessive exposure to gadgets, 2) lack of indoor and outdoor activities and 3) lack of parents monitoring. A kid with too much screen time using gadgets will have vision problems and be overweight, resulting in insufficient attention and slow cognitive development (Triggle, 2021). Children who confine to indoor may suffer severe repercussions. A lack of play can create health and mental problems and even impair the social skills of youngsters. The situation is worst with a small in-house space for indoor activities. Due to the present restricted movement, kids experience stress and anxiety symptoms. Most children show minor or sporadic signs, such as eating less, having problems sleeping, seeming more irritated, or expressing more anxieties (Hagin, 2020).

During the MCO, parents tend to distract children by permitting gadgets and online games. Around 84 percent of parents reported their kids' using devices in the house with them or another parent. Thirty-five percent of parents said they directly engaged in gadgets with their children and spent around 30 minutes to one hour per day doing so, while 23 percent spent one to two hours per day on gadgets (Auxier et al., 2020). The increasing rate of adoption in devices utilization among children during the Covid-19 pandemic is alarming.

There are several drawbacks of the social networking platform. First, the possibility of children being cyberbullied is relatively high. Children are exposed to predators like paedophiles when they use social media that consist of users of all ages. Second, the constant use of social media might lead to a sedentary lifestyle. Children aged 7 to 12 needs around 10 to 11 hours of quality sleep, but long hours of spending time with gadgets for social networking can disturb children's sleeping patterns. Third, incorrect or untrustworthy information can be quickly disseminated through social networking. With

minimal monitoring by parents or guardians, the possibility of children to trust and spread false news is relatively high. Social network applications may promote hatred and harass others. Thousands of tweets containing racist insults are posted daily. It can generate echo chambers in which followers propagate extreme propaganda, leading to radicalization over time. It can also result in social exclusion. Moreover, with minimal parental monitoring, social networking applications may be misused by children (Deveraux, 2021).

Concerning the scope, background of the study, and the issues that arise, this innovation project aims to explore three objectives in mitigating the adverse effects of social networking among children age between 7 to 12 years old:

1. to investigate the perception of the parent, guardians, and teachers towards the gadget utilization for social networking among their children,
2. to conduct a comparative analysis on available social networking applications, and;
3. to outline features of a secure social networking application that is user-friendly.

The remainder explains the method, findings from investigations, and a proposal of features of secure social networking applications.

2. METHODS

The primary data collection was conducted through semi-structured interviews with parents on 1 July 2021. Four respondents were selected to participate in an hour of one-on-one online recorded interviews. There are two mothers, an uncle, and a primary school teacher. The selection criteria are mainly due to having direct contact with children between 7 to 12 years old. They are required to provide feedback on 1) the situation of Covid-19, 2) the children's activities during the Covid-19, 3) observation on gadgets used, and 4) any concerns on the social networking application. The feedback was thematically analysed.

Secondly, the study collected data on the features of available social networking websites in July 2021. For this purpose, the second method is to compare the function, interface, and issues related to popular social networking such as Facebook and DELIMa. This is to aid in discovering innovative features of improved social networking applications.

3. RESULTS, DISCUSSION AND PROPOSED SOLUTION

There are two main inputs to developing a secure and practical social networking application for primary school children during Covid-19.

3.1: Findings on Gadgets Utilization and Social Networking Behaviour

The first findings on interview feedback highlighted three critical findings. First, kids have been very attached to gadgets ever since the Covid-19 pandemic, which is almost difficult to control. Second, devices and connectivity to the internet have become necessary to deal with parents' work conditions and to learning for the kids. Third, the feedback from the parent, guardian, and teacher implies that they all felt insecure with the existing social network and wanted a safe application for their kids. In short, parents, guardians, and teachers concur that there should be an adequately designed social networking application that suits the interest of the young user and serves the concerns of the parents, guardian, and teacher on the safety of children, socially, physically, and mentally.

3.2: Findings on Comparative Analysis on Facebook and DELIMa Features

The comparative study looked out for some weaknesses and strengths of the available applications. The idea of comparing Facebook with DELIMa is due to popularity and offerings to the 'young user' in Malaysia. There are two main findings. First, Facebook can be a source of cyberbullying. Facebook limits the minimum age of 13 years old to sign up, but some children fake their date of birth to register an account. Facebook allows individuals to share photos with their friends and followers; it has lately come to attention that the user data is not secure. In 2019, there was an issue with children's online safety due to technical errors in Messenger Kids. The app requires parental permission before kids chat

with other users. However, a loophole allowed users to invite kids to group chats without proper monitoring. Thus, trigger a violation of privacy issues. Facebook is also prone to activist programs that offer unreliable sources and influence children to unethical social activities.

Second, the Digital Educational Learning Initiative Malaysia (DELIMa) was launched in June 2020, focusing on primary school kids. There are several weaknesses of this application which include the unattractive layout used in the website. It uses white, light blue, and light yellow as its themes. The website only focuses on educational matters, including digital textbooks, Microsoft Office 365, and all Google services for educational purposes. While a structured website with limited activities may demotivate users, more advanced children will lack interest in simplicity. In short, the two applications are neither secure nor attractive.

3.3: Proposal for Secure Social Networking Application KIGGLES!

The KIGGLES is an all-in-one platform for social networking which focuses on primary school kids. 'KIGGLES!', a combination of 'kids' and 'giggles' that give a meaning of kids full of laughter and happiness. The main aim of KIGGLES is a platform for children to fulfil their leisure time with fun learning activities. There are two main features for improvement.

First, to affect children's moods, behaviour, and academic achievement, KIGGLES uses attractive colours to enhance children's learning process. The vivid block colours rather than pastels or subdued mixes are more appealing to children. Light tones of pink and beige and neutral shades of grey and brown are less attractive than primary colours red, yellow, and blue, and secondary colours green, orange, and purple (Pancare, 2019).

Second, the fun learning activities include games, quizzes, chats, stories, a diary, and movies. There are various types of arcade games for the gaming section, such as cooking, puzzles, word searching, and many more. Children can play games with friends and socialize better. The fun-based activities quizzes will test kids on what they have learned, including animation, pictures, words, and many more. The kids will aim to get the highest score and play again until they achieve the target. It will strengthen the memory of the kids. The Chat platforms allow texting and chatting to interact with friends even without meeting face-to-face. Chatting can help to improve communication skills, social skills and stay connected for more effective verbal and non-verbal communication. The stories and diary allow kids to share their feelings, photos, videos, or anything related to their interests. Kids may share an interest in music, art, study, and many more. Sharing can boost confidence and creativity. Kids can find and meet others that share similar interests and inspire others. The movie corner includes films and cartoons or any appropriate programs and offers bonding time with family and friends. It requires concentration and attention while providing important messages related to life. It can help kids to learn languages, words, and good values. Table 1 shows the features of Facebook, DELIMa, and the proposed KIGGLES!

Table 1. Features of Facebook, DELIMa, and KIGGLES

	Face book	Delim a	KIGGLES – Proposed Secure Social Networking Application
Newsfeed	Yes	No	Diary & Stories (open sharing)
Privacy for kids	No	Yes	Yes (secure and monitored by parents/guardian/ teacher)
Messenger	Yes	No	Yes (observed with identified members only)
Friends	Yes	No	Yes (identified users only)
Likes and Reaction	Yes	No	Yes (interactive and real-time)
Attractiveness of Layout	No	No	Yes (vibrant colours)

Group	Yes	Yes	Yes (identified group only)
Limitation of Age	No	Yes	Yes (within the same group of age)
Quizzes	No	Yes	Yes (fun and knowledge-based activities)
Education for kids	No	Yes	(Possible as an extended feature)
Movies	No	No	Yes (with group members)
Gaming	Yes	No	Yes (with group members -promote teamwork)
Exceptional Features on Security*			Limitation for the accessibility to 4 hours per day Accessibility to parents, guardians, or teachers - monitored Accessibility to many types of gadgets

4. CONTRIBUTION AND USEFULNESS/COMMERCIALIZATION

Potential for Commercialization

KIGGLES is a potential platform for online learning management systems. It can be extended to assist educators in creating a fun and enjoyable learning experience; enable learners to learn in many ways, at any time, on many platforms, and from various sources. Education for the primary schools centred around the ability to read, write, count and, becoming an observant that has critical and creative thinking style. Developing interpersonal skills is crucial for improving learning, communication ability, personality development, and lifelong learning skills. It is proposed to have two levels of fun learning activities; the age of 7 to 9 years old and 10 to 12 years old. Both groups will have a different level of knowledge following the education guidelines. KIGGLES! has potential for commercialization.

The Description of Novelty and Other

There are four novelty features. First, the application set limited accessible hours. 'KIGGLES!' needs to follow the Government requirements or rules and regulations under the Child Act No 611, 2001. The accessible time will be from 8 am to 8 pm, accurately 12 hours per day. There will be two sessions from 8 am until 2 pm (6 hours) and from 2 pm until 8 pm (6 hours). The parents can freely choose when their children can access this application. With the limited time of 4 hours per day, the application will be blocked automatically and accessed the next day. The feature is to ensure kids do not engross too much in online activities.

Second, safety and privacy screening. This application needs to be registered and verified by using a valid identification card (IC). The reason is that identity verification can guarantee a genuine parent or guardian as a patron. This step is crucial to trace accurate records and prevent any bullying and paedophilia issues. The feature could ensure the kids' safety, following the Malaysia Child Act 2001 and the Sexual Offences against Children Act 2017.

Third, the application allows monitoring by parents, guardians, or teachers as the host. Parents need to register as patrons/hosts and will be notified whenever kids signed in. They can trace and track the records of activities and hours accessed. Similar social networking applications are available abroad, but none is offered in Malaysia. Therefore, 'KIGGLES!' is the first for Malaysian kids.

Finally, 'KIGGLES!' will be available on smartphones, tablets, computers or laptops. The application is user-friendly and downloadable from Play Store, which is for Android users, while App Store is for Apple users. So, it could give all the primary kids an opportunity to enjoy and have fun through many mediums.

5. CONCLUSION

In conclusion, 'KIGGLES!' is a potential solution to the new lifestyle embrace by the children in Malaysia during the Covid-19 pandemic and beyond. The unique features of a social networking application are the only way forward to intentionally address the three main problems facing the parents, guardians, and teachers on children's development. This study offers some potential features to solve excessive exposure to gadgets, lack of indoor and outdoor activities, and lack of parents monitoring. In principle, education policy is aligned with the online fun learning activities; a more proactive and opportunistic approach must be taken to ensure the new normal brings advantages to the young users. This study provides a practical implication to parents, guardians, and teachers in exploring alternatives to their misery while the children can enjoy a better life and well-being.

ACKNOWLEDGEMENT

The authors would like to express appreciation for the support of the AAGBS in the MGT785 Management of Technology and Innovation, MBA Program.

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