



## Online Environments and Digital Parenting: An Investigation of Approaches, Problems, and Recommended Solutions

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### Abstract

Digital parenting enabled children to take advantage of the opportunities offered by digital media and online environments, while on the other hand it required the protection of children against the risk of these environments. In this context, it was aimed to present the online risks children are facing in the digital age, the strategies used by the parents to cope with such risks and the difficulties faced by the parents when using these strategies. To this end, a descriptive review was conducted. Thus, online risks and threats in the digital age were elaborated. In addition, the digital parenting approaches, strategies to cope with online risks and the difficulties parents face when dealing with these risks are discussed. Risks faced in social media and online games, and cyber bullying are determined as online risks. Parents often put restrictions and prohibitions as methods to cope with online risks. Furthermore, guidance and raising awareness in the use of online environments according to the age group of the child stands out. In case of difficulties faced by parents, there are situations such as privacy violations and parental complacency.

## Çevrim-içi Ortamlar ve Dijital Ebeveynlik: Yaklaşımlar, Sorunlar ve Çözüm Önerileri Üzerine Bir İnceleme

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### Öz

Dijital ebeveynlik, çocukların dijital medya ve çevrimiçi ortamların sunmuş olduğu fırsatlardan yararlanmasını sağlarken diğer taraftan bu ortamların verebileceği zararlara karşı ise çocukları korumayı gerektirmektedir. Bu bağlamda bu çalışmanın amacı, dijital çağda çocukları bekleyen çevrimiçi risklerin, bu risklerle baş etme yöntemleri olarak ebeveynlerin kullanmış olduğu stratejilerin ve bu stratejileri kullanırken ebeveynlerin karşılaştığı güçlüklerin ortaya konmasıdır. Çalışmada dijital ebeveynlikle ilgili alan yazın incelenerek bir betimsel tarama yapılmıştır. Bu bağlamda çevrimiçi riskler, dijital ebeveynlikte öne çıkan yaklaşımlar, ebeveynlerin çevrim-içi risklerle baş etme stratejileri ve bu risklerle baş ederken karşılaştıkları zorluklar ayrıntılı olarak irdelenmiştir. Sosyal medya ile çevrimiçi oyunlarda karşılaşılan riskler ve sanal zorbalık dijital ortamlarda karşılaşılan çevrimiçi risklerdir. Dijital ebeveynlikte öne çıkan yaklaşımlar; kısıtlayıcı, öğretici, birlikte kullanımı etkinleştirme ve müdahale etmeme olarak belirlenmiştir. Ebeveynler çevrimiçi risklerle baş etme yöntemleri olarak genelde kısıtlama ve yasaklar koyma yolunu tercih etmektedirler. Ayrıca çocuğun yaş grubuna göre çevrimiçi ortamları kullanma konusunda rehberlik yapma ile bilinçlendirme çabaları gözlenmektedir. Ebeveynlerin karşılaştıkları zorluklar olarak ise gizlilik ihlali ve ebeveyn kayıtsızlığı gibi durumlar öne çıkmaktadır.

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## Introduction

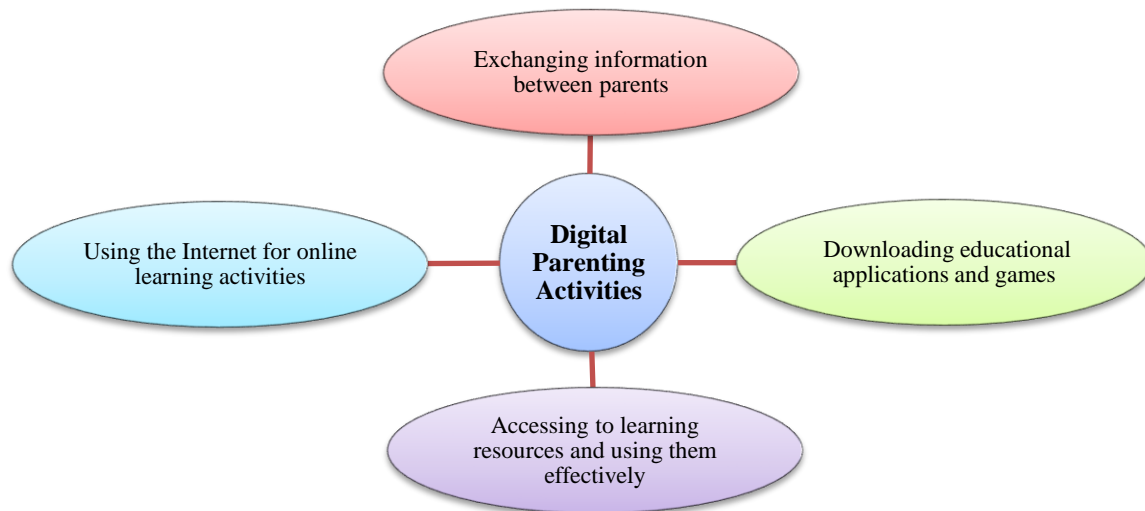
Emerging information and communication technologies (ICTs) provide end users with many opportunities to make their life easier. However, these technologies carry a variety of risks and threats, along with the new opportunities they offer. Users of various ICT technologies are influenced by these risks and threats in various ways. Children who are among these groups are the most vulnerable to risks and threats faced in online environments. This is why it is accepted, especially by educators, that children need support and guidance in ICT technology use. It is seen, however, that different methods of support are suggested in the literature (Lim, 2016; Livingstone, Blum-Ross, Pavlick, & Ólafsson, 2018). On the other hand, it is also clear that parents have a great responsibility for keeping their children away from the risks they face, or for raising their awareness about what they are supposed to do in online environments (Kabakçı-Yurdakul, Dönmez, Yaman, & Odabaşı, 2013). Therefore, it can be said that parenting in the digital age requires parents to ensure the security of children in online environments, along with the responsibility of organizing and controlling their online activities (Huang, Li, Chen, & Straubhaar, 2018). In this context, it will be helpful to expand the concept of parenting in the digital age.

### What is Digital Parenting?

Emerging technologies in the digital age have been spread across every layer of society. This situation has altered family relations, the way parents direct their children about the use of media, the way parents and children communicate with each other, and media consumption habits of parents (Lim, 2016). In other words, parenting in the digital age requires certain responsibilities in online environments and going beyond traditional parenting.

A digital parent is described as someone who has basic technology literacy; is aware of online risks and threats and knows how to protect his/her child against these risks; can incorporate digital technologies into parenting applications; regulate his/her child's interaction with digital media; and follows developments in technology (Huang, Li, Chen, & Straubhaar, 2018; Kabakçı-Yurdakul et al., 2013; Mascheroni, Ponte, & Jorge, 2018). Digital parenting allows helping children take advantage of opportunities provided by digital media and online environments, while requiring parents to protect their children from the harms that these environments might cause (Livingstone & Helsper, 2008).

It is possible to address digital parenting in two ways: The first one of these includes a parent's own use of digital media in the form of "his/her access to digital media, frequency of use and level of use," while the other includes the parental awareness level of how the child uses digital media and his/her supervision of the child's use of digital media. Therefore, digital parenting should not be considered only as the parent's monitoring and managing digital media and Internet use of his/her child, and establishing rules about it. This is because in today's world where portable devices and wireless network access offer access to information anywhere and anytime, parents also benefit from these opportunities for their own parenting practices (Lupton, Pedersen, & Thomas, 2016). Therefore, digital parenting also comprises activities such as: parents' exchanging information among themselves and receiving information and advice from each other; taking advantage of the Internet in an effective way for their children's learning activities such as school and course activities; being able to download educational applications or games needed; and being able to reach the learning resources needed by their children and using them effectively (Livingstone et al., 2018; Lupton et al., 2016). These digital parenting activities are summarized in Figure 1.



**Figure 1.** Digital parenting activities (Livingstone, Blum-Ross, Pavlick, & Ólafsson, 2018; Lupton et al., 2016)

### Significance and Purpose of the Study

As access to the Internet is enhanced to be anywhere and anytime with the widespread use of mobile devices among users, children's access to the Internet is increasing in their bedrooms. It has been thought that this situation is causing parents to have less control over the content that their children consume. Moreover, the fact that many children are more competent than their parents in the use of technology or navigating in online environments further amplifies the feeling of lack of parental control (Lim, 2016; Willett, 2015). There is a great deal of dangers awaiting children in online environments. Parents have great responsibilities to keep their children away from such dangers. Therefore, it can be said that it is necessary to select online materials consciously and monitor children's behaviours in online environments to protect them from potential online risks and threats (Willett, 2016). In this context, it is thought that it is important to offer insights into digital parenting approaches adopted in various environments.

Thus, the aim of this study is to reveal online risks and threats that await children in the digital age, the strategies that parents use as methods of dealing with such risks, and the difficulties encountered while using these strategies. Answers to the following questions were sought to achieve this goal:

1. What are the online risks and threats awaiting children in the digital age?
2. What are the approaches that are prominent in digital parenting?
3. What are the ways in which parents cope with the difficulties they face in digital environments?
4. What are the obstacles parents face in their interventions in situations that they face in digital environments?

### Method

In this study, a literature review was conducted to reveal the online risks and threats that await children in the digital age, the strategies that parents use as coping with these risks, and the difficulties encountered while using these strategies.

In order to collect data for the study the “Web of Science” (WoS) and Google Scholar databases were used. WoS was preferred because articles published in journals that are prestigious and have high impact factor are indexed in this database. Google Scholar is also used because some reports are only accessible through this platform. When doing the search, keywords such as the following were used: “digital parenting and media, digital parenting and online risks, parenting mediation and online environments, parenting approaches and online environments, parenting in the digital age, digital games and parenting, social media and parenting, cyberbullying and parenting.” Articles reached through the search conducted were included in the study providing that (a) their full text was open access, and (b) they were related to digital parenting. Out of 159 documents reached in WoS, only 29 of them met the above criteria, which included in the study. In addition, two research articles and three research reports that are reached through Google Scholar were included in the study as well. In other words, articles related to the use of various digital technologies and media such as digital games and social media, digital parenting and online environments, as well as articles on the parenting strategies used in these environments were examined. In short, the total number of studies examined reached to 34 (see Appendix 1).

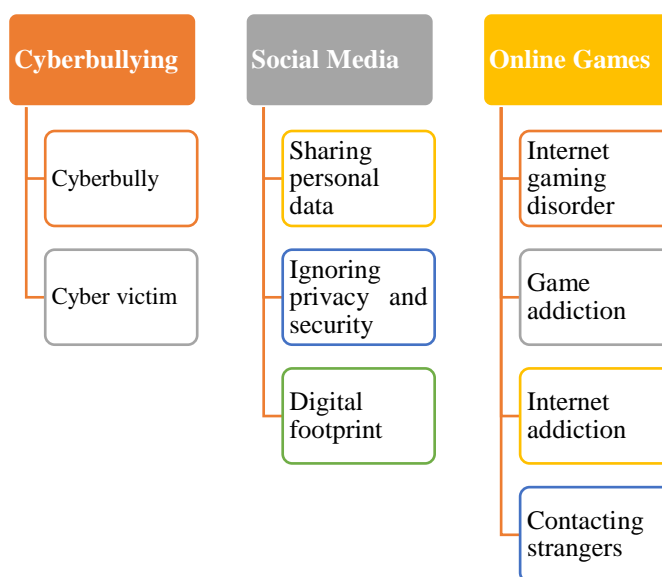
Content analysis was conducted in this study. The articles were addressed and analysed according to the following criteria: the online media where they were used, the parenting approaches that were used, and age - as one of the demographic characteristics of the participants. In this context, they were examined in detail under the following headings: online environments and the risks they create, the ways in which parents cope with the risks in these environments, the challenges they face when dealing with these risks, and the approaches that are prominent in digital parenting.

## **Findings and Discussion**

The findings are presented in a way that the sub-problems determined in line with the purpose of this study are answered separately. In this context, the online risks and threats awaiting children in the digital age, the approaches emerging in digital parenting, strategies of the parents to cope with the online risks and the difficulties faced by them when coping with these risks were scrutinized in detail.

### **Online Risks and Threats Encountered in Digital Environments**

The first research question of this study was “*What are the online risks and threats awaiting children in the digital age?*” To answer this question, an attempt was made to determine the online risks encountered in digital media in the literature. Online risks observed in the literature in relation to digital media is summarized in Figure 2.



**Figure 2.** Online risks and threats

Access to the Internet is becoming increasingly easy in society in general. Especially mobile devices, which are more common- have made it possible to access to the Internet anywhere and anytime, significantly contributing to the increased use of the Internet among the younger generation. Because of this, children and adolescents more frequently use the Internet. There are so many different types of applications that can be used for various reasons such as accessing social media, online games, video sites, forums, and blogs. According to “Digital in 2018” report (Kemp, 2018), 8% of Facebook users worldwide and 7% of the users of the Instagram users are children in the age range from 13 to 17. In Turkey, the time spent on the Internet in one day is around seven hours and nine minutes, while the time spent on social media is two hours and forty-eight minutes. The widespread use of the Internet by children and adolescents brings a variety of risks due to their limited self-regulation capacities and their sensitivity to peer pressure (O’Keeffe, Clarke-Pearson, & Council on Communications and Media, 2011). Especially adolescent children have been reported to tend to disclose their personal information -in order to enrich their experiences in online environments such as social networking sites or online games- and to establish strong social relationships with individuals who they think are their peers (Mesch, 2009; Shin & Khang, 2016). This endangers children’s private life. In this process, problems can arise, including exposure to inappropriate content, endangering personal data, and cyber-bullying. What may be considered another risk is that children also take actions such as unconsciously sharing information in various environments or disturbing others through these environments. In addition, children do not know how their actions will affect their lives in the future and also may not know that their actions are recorded. For these reasons, parents are expected to be aware of these risks and develop strategies to cope with these risks. In this context, it is thought that it is beneficial to present the online risks and threats that children face.

### ***Cyberbullying as an Online Risk/Threat***

Differing from normal bullying in terms of detectability and visibility due to the use of digital technologies, and including behaviours that aim to hurt someone (Keith & Martin, 2005), cyberbullying is described as a form of aggression performed through various online tools and/or platforms (Horner, Asher, & Fireman, 2015; Kowalski, Giumetti, Schroeder, & Lattanner, 2014; Wang, Iannotti, & Nansel, 2009). The fact that children have broad access to the Internet and that they use digital technologies extensively, as well as the lack of social clues due to the absence of a face-to-face interaction in these environments, is shown as a factor essential to facilitating and expanding cyberbullying (Mesch, 2018; Mishna et al., 2012). Mesch (2009) has stated that there are three

fundamental factors causing the increased prevalence of cyberbullying and differentiation of it from traditional bullying. He has listed these factors as (1) that bullying actions in virtual environments do not require a common physical environment, and in this way, such bullying activities can carry on continuously, (2) that the activities are unanimous, and (3) that children are not aware of the consequences of cyberbullying.

The literature on cyberbullying indicates increased tendency for cyberbullying behaviour or risk of cyber victimization as the time spent on the Internet increases (Chang et al., 2015; Çelik, Çelen, & Seferoğlu, 2015; Demir & Seferoğlu, 2016; Durak & Seferoğlu, 2016; Erdur-Baker & Kavşut, 2007; Gölpek-Sarı & Seferoğlu, 2019; Horzum & Ayas, 2011; Kavuk & Keser, 2015; Kowalski & Limber, 2007; Yenilmez & Seferoğlu, 2013; Yiğit & Seferoğlu, 2017; Yiğit, Keskin, & Yurdugül, 2018). In this process, females are more likely to be cyber victims than males (Kokkinos, Antoniadou, Asdre, & Voulgaridou, 2016; Sasson & Mesch, 2017), and adolescents cyberbully or be victims of cyberbullying more frequently than other age groups (Mesch, 2009). Moreover, it has been stated that peer behaviour is also associated with cyberbullying and that peers encourage each other to engage in online risky behaviours such as “meeting with and talking to strangers in online environments, sending insulting messages to others, and so forth” (Sasson & Mesch, 2017). It has also been stated that social networks are the most suitable environment for cyberbullying actions and therefore pose a great risk (Mesch, 2009). For this reason, raising awareness of children about using the Internet safely (Kabakçı-Yurdakul & Yaman, 2018) is shown to be among the responsibilities of parents to prevent the increasingly widespread cyberbullying behaviours. However, parents face a variety of difficulties when they try to cope with this problem.

The main challenge faced in coping with cyberbullying is that children and parents approach technology differently and use technology to do different things (Keith & Martin, 2005). The proliferation of personal portable devices and wireless Internet access make it easier for children to access the Internet. However, this complicates for parents to exert control over activities on the Internet (Mishna et al., 2012). In order for families to cope with these difficulties, it is of great importance to offer them training on and raise their awareness of this subject (Yenilmez & Seferoğlu, 2013) because the social support provided by parents can prevent cyberbullying actions and cyber victimization (Yiğit, Keskin, & Yurdugül, 2018). On the other hand, it should be underlined that it is necessary to use different strategies according to the age and gender of the child.

When the literature was examined, it was found that parents used various approaches to prevent cyberbullying. The most common of these are restrictive strategies described as the act of limiting online activities (Wright, 2017; Wright, 2018). Some studies have suggested that these strategies may have a positive effect on preventing or reducing cyberbullying (Chang et al., 2015, Vazsonyi, Jiskrova, Özdemir, & Bell, 2017; Wright, 2017), whereas in some other research, it has been expressed that the strategies have negative rather than positive effects and even promote cyberbullying (Ho, Chen & Ng, 2017; Kokkinos et al., 2016; Leung & Lee, 2011; Sasson & Mesch, 2017).

It has been stated that the younger age group responds more positively to restrictive strategies, whereas such restrictions cause a negative effect on adolescent children. It has been argued that measures such as limiting online activities of adolescent children or introducing various barriers to access increase the tendency of children to display bullying behaviours and encourage them to cyberbully (Ho, Chen, & Ng, 2017). On the other hand, there is also the argument that these strategies would reduce the likelihood of a child to cyberbully and reduce the risk of being a cyber victim (Mesch, 2018; Wright, 2017). Mesch (2009), however, has claimed that restrictive strategies isn't related to cyberbullying. When the subject is considered in terms of gender, it has been stated that adolescent girls are more likely to be cyber victims than boys (Sasson & Mesch, 2017). On the other hand, restrictive strategies result in more positive results in girls than in boys (Wright, 2017). Consequently, raising children's Internet literacy levels will reduce the risk that they behave adversely or face adverse behaviours in online environments (Chang et al., 2015). It is also stated that for this reason, parents frequently need to be in dialogue with their children (Mesch, 2018), and keep restrictive measures at a minimum level (Wright, 2018). In addition, it has been emphasized -in a guide book prepared by Parkside Academy (2018) to guide parents- that



parents should not tolerate cyberbullying behaviours of their children and report these behaviours in such conditions.

### ***Social Media as an Online Risk/Threat Environment***

It has been found that parents with adolescent children in particular, have a tendency to frequently use social media to keep in touch with their children, and to monitor what they do in that platform (Livingstone et al., 2018). It has also been observed that parents mostly prefer social media to share their knowledge resources and their parenting experiences with others (Lupton et al., 2016; Mesch, 2018). However, it is seen that parents are unable to effectively follow social media tools, unable to gain new knowledge of these technologies, and therefore, are unable to adequately monitor their children's online activities (Elsaesser et al., 2017). On the other hand, it is considered that situations such as unconscious use of social media by children and parents, their engaging in certain activities without considering the consequences, and their sharing of personal data without worrying about privacy can have consequences that may significantly affect their future prestige (O'Keeffe & Clarke-Pearson, & Council on Communications and Media, 2011).

Holloway, Green, and Livingstone (2013) argue that parents who share their children's photos and videos unconsciously on various social media sites may pose various problems for their children in the future. The most important of these problems can be expressed as the fact that such things that parents or children share become permanent on the Internet. When Internet users visit web pages, for example, each movement, record and transaction left behind about which pages they have visited are kept in a database. The trail of data created while using the Internet, the data accumulated separately for each user, is called a digital footprint (Surmelioglu & Seferoglu, 2019; Weaver & Gahegan, 2007). This is seen as the most significant threat on social media sites that can affect the future reputation of children and adolescents (O'Keeffe & Clarke-Pearson, & Council on Communications and Media, 2011).

On the other hand, it is seen that answers to questions such as the following are being sought in the literature: "What sorts of posts do parents share most on social media? What kind of content do they prefer to share? How do they make these decisions, and what do they think are the effects of these decisions for themselves, their children, their friends, their families and others? What do they understand and know about how other actors and agencies use their personal data?" It has been stated in various studies that doing research on these issues is very important (Lupton et al., 2016). Additionally, questions like "What do children understand from digital parenting? How much digital parenting do they think their parents are capable of?" (Huang et al., 2018) also appear to be other issues for which answers are sought.

### ***Digital Games as a Potential Risk/Threat***

Digital games are another topic of interest to digital parents. This topic has been extensively examined in the literature, especially in recent years. Parents are expected to organize their children's game consumption and choose games that are suitable for certain ages. Risks such as the fact that games often contain violent elements, one is exposed to the screen for prolonged times during a game, and games involve addiction and aggression are considered as the factors that concern parents (Willett, 2015, 2016). However, in addition to these, today's newest and most popular game type "Massively Multiplayer Online Role-Playing Games" (MMORPGs) -of which the number of users has steadily increased to 20 million worldwide especially in recent years- are known to increase the concerns of parents.

MMORPG is a game type that is played online in a virtual world, involving many people synchronously in the game who are expected to fulfil various tasks individually or in groups by impersonating the characters they want through their avatars. Due to the features of these games such as a virtual world, group interaction, and impersonation of characters with unique characteristics, the popularity of these games is growing increasingly and children are playing these games excessively (Russell & Johnson, 2017). Interaction with this game is emerging to be an addictive behaviour that is called Internet gaming disorder, which cause players to have clinical and

psychological disorders. Internet gaming disorder is defined as a psychological disturbance that manifests itself as an excessive addictive behaviour resulting from triggering of certain parts of players' brains by emotions such as rewards and pleasure when they play Internet games (American Psychiatric Association, 2013).

Game addiction is an important issue that worries parents. There are several studies on this situation, which has been studied as video game addiction or Internet game addiction. Game addiction is generally more common in boys than in girls (Kim & Kim, 2015; Kveton & Jelinek, 2016). Kim and Kim have stated that Internet gaming addiction is especially observed in male adolescents and that this event is influenced by the relationship between children and their parents. They have expressed that strong relations between parents and children are an important factor in predicting Internet gaming addiction. Kveton and Jelinek have shown that video game addiction increases as age decreases, and that parental approaches do not affect video game addiction.

On the other hand, one of the most important features of these games is that they offer the ability to engage in voice or written communication between players in the game through the inter-player social interaction feature. It has also been stated that this feature amplifies the potential of these games to cause Internet addiction (Billieux et al., 2015). As a result, parents' concern is that because of the social interaction feature of digital game environments, their children can easily interact with strangers and get exposed to certain bullying behaviours. Being aware of children's behaviours in such environments is, naturally, becoming an increasingly important issue, as well as taking measures to protect them from the risks in such environments (Willett, 2015).

Russell and Johnson (2017) conducted a study to investigate the potential impact of Massively Multiplayer Online Role-Playing Games (MMORPG) on family relations. They interviewed four parents who had children playing games excessively. Consequently, Russell and Johnson stated that all parents believed that their children were addicted to games that their children should be guided, and they needed to get advice. The parents also thought that although the MMORPG offered the possibility of socializing, their children did not socialize.

Online games often allow children to interact with other people, as well as enabling them to play games wherever they are through mobile devices (Willett, 2016). This makes it even more difficult for parents to control their children and adversely influences domestic relations (Russell & Johnson, 2017). Parents need to make conscious choices about websites to avoid online risks for their children, as well as letting their children benefit from opportunities in online environments. However, it has been stated that making choices is not sufficient; parents need to assess various game sites, supervise their children's use of the Internet and the screen, observe their child, and guide their children based on these observations (Willett, 2015).

The approaches that parents use for digital games are similar to the approaches they use on other platforms such as "active parenting, restrictive parenting and playing together." These involve a dialogue between the parent and the child on the positive and negative aspects of games, restriction of children's game consumption, and parents' playing games with their children (Martins, Matthews, & Ratan, 2017; Nikken & Jansz, 2006). In the Nikken and Jansz study, it was also found that the most adopted approach by the parents was the restrictive approach, and the least adopted approach was the playing-together approach.

### **Emerging Approaches in Digital Parenting**

The second research question of this study was "*What are the approaches that are prominent in digital parenting?*" In order to answer this question, an attempt was made to determine parenting approaches that varied depending on children's age and were prominent in the literature.

Approaches adopted in digital parenting can vary depending on the age of the child (Cabello-Hutt, Cabello, & Claro, 2018) and the platform used. Parents have great responsibilities in terms of the proper and safe use of digital media, especially because children in the preschool period are in cognitive and functional stages of development. It has been stated that digital media have both positive and negative effects on the development of preschool children. Negative effects are more prominent in physical, psychological and social areas, whereas positive effects are more prominent in academic and cognitive fields (Wu et al., 2014). Lim (2016) has indicated that preschool



children have little control over the use of digital media devices and content that they can access, so parents, in particular, play a critical role in the creation and arrangement of children's media environment. Measures such as the following can be given as examples of interventions that can be used for preschool children: "downloading appropriate applications, games and videos for mobile devices used by children; adjusting parental control filters to prevent children from being affected by harmful content; and restricting screen usage time." Moreover, interventions such as the use of digital media together or guiding the child on the use of digital media can also enable the child to make sensible choices (Lim, 2016).

According to the report entitled "Parenting for a Digital Future" by Livingstone et al. (2018), parents often use enabling and restrictive strategies, but these strategies also vary by age group. It has been determined that often restrictive strategies are prevailing in the younger age group (below age 5), while the strategies for "using together with the child" are also used. In the age range of 5–12, activities such as active speech, and raising awareness about online use are used, in addition to establishing some rules. Wu et al. (2014) also showed that parents mostly adopted the restrictive approaches in preschool children. However, they stated that a combination of the instructive approach and the "using-together" approach should be used, in addition to the restrictive approaches. Thus, parents who have children in the preschool age group are advised to establish more rules and bans than those with school-age children and adolescents, whereas parents with children in the 5-12 age group are advised to adopt the instructive approach and the "using digital media together with the child" approach in addition to the restrictive approach (Wu et al., 2014). These digital parenting approaches are listed in Table 1.

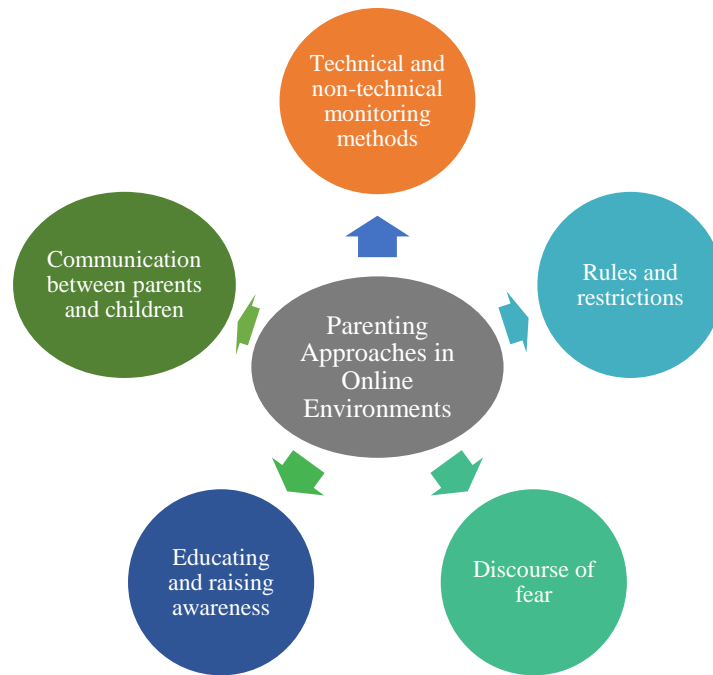
**Table 1.** Digital Parenting Approaches

Digital Parenting Approaches	Measures
Restrictive	Rules and prohibitions, monitoring, managing, access barrier
Instructive	Guidance, awareness, orientation
Using together	Interactive use of digital media
Enabling	Awareness, guidance, put restrictions, interaction
Nonintervention	Parents cannot follow or guide their children's online activities because they do not have enough technology literacy knowledge

On the other hand, for adolescent children, the responsibilities that fall on parents' shoulders are becoming somewhat more complex. The "using-together" strategies appear to decrease in this age group compared to other age groups, and restrictive strategies appear to be replaced by the enabling strategies (Livingstone et al., 2018). Moreover, activities such as "children's having their own devices and acting independently; having their own social media accounts; being able to download the games and applications they want to their mobile devices; being able to navigate the Internet independently; and being more competent to use digital media than their parents" bring various risks (Lim, 2016). Although children in this age group are highly competent in digital skills, their use of digital technologies for a long time increases the likelihood that they will encounter digital risks (Mesch, 2018; Rodríguez-de-Dios, van Oosten, & Igartua, 2018).

As a result of their interviews with experts, Marsh, Downs and Cranor (2017) have grouped digital parenting approaches used in online environments for adolescent children in five subcategories. Two of these are described as technical and non-technical monitoring methods used to monitor children's behaviours in online environments. Technical monitoring methods are described as parents' monitoring their child's online behaviour by installing various software on the computer or mobile devices, while non-technical monitoring methods include behaviours such as browsing the child's social media accounts, reading his or her messages, and browsing the search history in Internet browsers. Other approaches have been stated as the establishment of various rules such as limited access to online environments; discourse of fear defined as the act of scaring the child about how s/he should not behave in online environments; educating and raising awareness of the child about appropriate online behaviour; and

communication between parents and children. The intervention method called discourse of fear is thought to push the child to deny that a behaviour is risky rather than discouraging him/her from doing risky behaviours (Marsh et al., 2017). Therefore, parents need to have knowledge about online practices as well as such risks and to carefully choose their interventions. This is because it has been stated that children in this age group do not make decisions by thinking logically but by using their emotions, and therefore, may cyberbully or be cyber victims, while the values, thoughts and worldviews of these children may possibly be influenced by people with whom they get in touch. Parenting approaches used in online environments for adolescents are shown in Figure 3.



**Figure 3.** Parenting approaches used in online environments for adolescents

**The Ways in Which Parents Cope with the Difficulties They Face in Digital Environments**

The third research question of this study was “*What are the ways in which parents cope with the difficulties they face in digital environments?*” To find answers to this question, an attempt was made to determine the methods that were implemented in the literature as solutions when problems were encountered.

Factors such as parents’ values, life and working conditions, socioeconomic levels, technology literacy levels and digital media uses differentiate the approaches adopted in digital parenting (Cabello-Hutt, Cabello, & Claro, 2018; Lim, 2016). For this reason, various research reveals that different approaches are adopted in digital parenting. Livingstone and Helsper (2008) described these approaches as “active mediation, restrictive mediation and using together” in the use of digital media. Active mediation is based on parents’ instructive or critical conversation with their children about digital media when their children use any digital media. Unlike active mediation, restrictive mediation is the restriction of the media used, the time spent or the content used directly, without having to talk to the child about the digital media used, and the establishment of a number of rules regarding these. Using together is described as parents’ being around when their children interacts with digital media. Monitoring their children about how they need to interact with media and sharing their experiences with them, but not commenting on that environment or its effects is another approach. Similarly, Wu et al. (2014) have mentioned three types of parenting approaches in the use of digital media. These are the “restrictive approach,

instructive approach and using together.” The restrictive approach includes behaviours such as monitoring and managing a child’s use of digital media and establishing rules. The instructive approach involves guiding the child on the use of digital media, communicating with the child and raising awareness about the use of digital media. Using together is described as the act of the parent and the child to use and experience digital media together. This strategy, also referred to as “participatory learning,” is a new parenting approach, which has emerged based on the idea that restrictive and instructive approaches are insufficient, and is expressed as the act of parents and children to gain digital skills by interacting jointly in digital environments (Rodríguez-de-Dios, van Oosten, & Igartua, 2018).

It is understood from the review of the relevant literature that new methods are used in parenting approaches, or new strategies have been developed in addition to the methods mentioned above. For example, Livingstone et al. (2018) have aimed to determine the attitudes, skills and values of parents to use digital media in their own lives. They have also aimed to determine the effect of these attributes on children’s management of use of digital media in the children’s own lives and expectations. They have determined that the parents often used strategies such as restrictive strategies (establishing rules and prohibitions) and strengthening strategies (enabling/active speaking). The restrictive strategies include restrictions and prohibitions, such as limiting the duration of children’s media use to several hours, and prohibiting from entering certain web pages or games. The strengthening strategies involve encouraging the child to use the Internet in a safe way, as well as the use of a variety of technical constraints, in which the parent–child interaction is promoted (Livingstone et al., 2017).

Rode (2009) conducted a study on parents with children aged 7 years and older and explained the rules that parents establish in order to keep their children safe under five different categories. The first one of these is to restrict access to the computer to keep children away from potential threats. The second category is described as establishing rules based on social norms or making sure that one’s child understands that one has trust in his or her child. The third category covers rules such as to establish rules to protect the computer from threats such as viruses, delete anonymous emails, block pop-up menus, require the child to get permission to enter a new Web page, and not allow the computer to be used by the friends of the child. The fourth category is described as preventing potentially risky activities. The fifth category includes rules such as the prevention of dangerous-looking events and stating that chat programs or interactive games should not be used.

According to the results of a survey study on 6400 parents with children in the age range of 6–14, parents take more precautions (restrictions) on the use of the Internet for girls compared to those for kids and boys in the younger age group (Livingstone et al., 2017). When parents found themselves or their children inadequate in terms of their digital skills, they were found to be more restrictive. Moreover, parents who were talented in digital skills emphasized that their children should be free to assess online opportunities and face online risks. Thus, it is thought that children will become aware of possible damages and develop strength against such damages.

### **Difficulties Faced by Parents**

The fourth research question of this study was “*What are the obstacles parents face in their interventions in situations that they face in digital environments?*” To find answers to this question, an attempt was made to determine the problems faced by parents during their interventions in the literature.

Today, due to the diversity of applications available on the Internet, it seems almost impossible that parents have full knowledge of the things that need to be known about such applications or about the use of the Internet. Children overall are highly skilled to use the Internet. Children also are more knowledgeable about the applications on the Internet and the use of these applications than their parents. In short, there is a yawning gap between parents and children about the use of online media in terms of knowledge and technical skills (Durak & Kaygın, 2019; O’Keeffe & Clarke-Pearson, & Council on Communications and Media, 2011). Some parents, on the other hand, have sufficient knowledge of the technical functioning of online media use. Even so, it has been stated that, setting up device filters, using tracking software that tracks web histories and deleted messages violates the child’s privacy, increases privacy concerns, and harms the trust relationship between parents and their children (Lim,

2016; Marsh et al., 2017). It is thought that it will be helpful to give detailed information for these technical situations to be understood.

### ***Violation of Privacy***

Violation of privacy is an important issue that makes it harder to achieve digital parenting for adolescent children. Children in this age group think that parental intervention is a violation of their privacy. With the fact that children use these technologies effectively, they develop various strategies such as “clearing browsing data, deleting instant messages, and so forth” to hide their own experiences from parental control. Therefore, it is getting increasingly difficult for parents to supervise their children’s use of the Internet or raise their awareness about the risks and threats (Livingstone, Blum-Ross, & Zhang, 2018; Shin & Khang, 2016).

Studies conducted with adolescent children often reveal that restrictive strategies increase the privacy concerns of adolescents compared to that in other parenting approaches, and harm the relationship between parents and children (Livingstone et al., 2017; Rodríguez-de-Dios, van Oosten, & Igartua, 2018; Shin & Khang, 2016). On the other hand, studies have suggested that restrictive strategies reduce potential online risks, but also reduce opportunities and prevent children from improving their skills of using digital media due to the fact that they prevent them from taking advantage of possible opportunities (Cabello Hutt, Cabello, & Claro, 2018; Livingstone et al., 2018).

### ***Parental Indifference***

Parental indifference is described as a parental characteristic that prevents digital parenting interventions. This situation can happen in various ways. Parents’ being unaware of their children’s online activities or the existing technologies they use, working parents’ not having enough time to deal with their children or lack of basic technology literacy (Marsh et al., 2017) can be given as examples.

The parent–child relationship has an important role in preventing online risks. This relationship is thought to ensure that children are able to communicate directly with their parents when they make mistakes in online environments and not hesitate to tell what they have experienced (Paul, 2015). It has been stated that the more powerful the parent–child relationship is, the less likely it is that children will be affected by events such as cyberbullying and Internet addiction (Chang et al., 2015). It is also believed that a strong parent–child relationship can play a significant role in preventing Internet gaming addiction (Kim & Kim, 2015). However, less parental control has been stated to cause higher aggression behaviours. That is, children’s having computers in their own rooms, for example, leads to less supervision, which in return leads to more aggression (Law, Shapka, & Olson, 2010).

In their study Yaman et al. (2019) determined that the parents’ education levels and internet usage experiences do not have a significant effect on digital parenting levels. On the other hand, it is stated that parents who are aware of online risks prefer restrictive strategies to protect their children from these environments (Yaman, 2018). In addition, it is thought that there are differences between one’s basic technology literacy level and parenting strategies that are used. In this context, it has been found that parents with low technology literacy, for example, gravitate towards more restrictive strategies. In their study Cabello Hutt, Cabello and Claro (2018) have indicated that parents who use the Internet frequently in their daily lives tend to adopt the approaches of co-use and active mediation and avoid restricting their children’s use of the Internet. However, Kokkinos et al. (2016) have stated that children of parents with inhibitory and obedient attitudes experience more cyberbullying or cyber victimization because they use the Internet more often and less securely. It has been determined that parents with less education on computer games more commonly restrict video games, and parents with high education are in favour of active mediation (Nikken & Jansz, 2008). However, it is believed that restrictive strategies are not very beneficial in preventing online risks. Therefore, it has been stated that parents’ establishing strict rules or interfering with their children’s behaviours on the Internet would not prevent their children from being targeted in online environments (Leung & Lee, 2011). In addition, in their study Lau and Yuen (2013) found that none of the parenting approaches were effective in reducing or preventing online risky behaviours. On the other hand, it was

suggested that the restrictive approach would cause children not to share their experiences with their parents in fear of losing digital media access (Yaman, 2018).

### Conclusion and Recommendations

The purposes of this study were to reveal (a) online risks and threats that await children in the digital age, (b) the strategies that parents use as methods of dealing with these risks, and (c) the difficulties they encounter while using these strategies. With the widespread use of mobile devices, as stated in the literature, access to the Internet has become possible anytime and everywhere. The proliferation of Internet use among children has brought about various online risks. The responsibility for protecting and keeping children safe from these risks falls on parents' shoulders. This new responsibility is called 'digital parenting' in the literature.

In the context of the studies accessed within the scope of this study, the concept of digital parenting is described as a parent who is monitoring, managing, restricting children's online and offline behaviour without violating their privacy, as well as not preventing them from taking advantage of the opportunities offered by online environments and use the Internet and other technologies together when necessary. The online risks and threats faced by children and the ways parents can cope with these risks and threats are summarized in Table 2.

**Table 2.** Online Risks and the Ways Parents Can Cope with These Risks

Online Risks and Threats	Coping Methods
Disclosure of personal information	Putting various bans and rules
Cyberbullying	Using media together with their children
Meeting and talking with sinister strangers	Guidance and awareness raising on the use of digital media
Sharing their photos, videos, etc. with the strangers without worrying about privacy	Monitoring their children's online behavior
Internet gaming disorder	Raising their children's awareness of online risks, guiding their children
Game addiction	Restricting the duration of use

The risks that are likely to be faced by children in online environments and that parents should be aware of can be listed as follows: "disclosure of children's personal information, children's sharing unconscious posts, and as a result, their being exposed to various attacks or their themselves bullying their peers; children's meeting and talking with sinister strangers in online environments and sharing with the strangers their photos, videos, etc. without worrying about privacy; and clinical and psychological disorders caused by online games (Internet gaming disorder) and game addiction." The methods that parents use to cope with these risks are "limiting their children's use of digital media, putting various bans and rules, monitoring their children's online behaviour by using various software, raising their children's awareness of online risks, guiding their children, and using media together with their children."

Parents mostly adopt the restrictive approach in terms of using digital media. The main reason for this situation is that they see themselves inadequate comparing to their children in terms of using digital media. Other reasons can be listed as: "parents' failure to communicate with their children, their failure to take time to use digital media together with their children, their inability to allocate time for their children, and their avoiding learning about online media." Directly imposing bans or restricting the duration of use have emerged as the most preferred methods because they are easy for parents, instead of following things, talking, or discussing.

Parents have a little difficulty in this regard, because today children have more knowledge and higher competence than their parents about the use of digital media. Parents need to be knowledgeable about online environments and how they are going to track what their children do in online environments, as well as how they should guide their children. However, it is clear that, in that case, they will face the problem of violating their

children’s privacy. Consequently, the parent–child relationship will be disrupted, the child’s trust in his or her parent will be shaken, and the child will use online environments more secretly. On the other hand, there are also various difficulties that parents face when they make interventions. The most common of these is the fact that parents fail to be familiar with all online environments, and they fail to be able to have a command of all online environments. Interventions made by parents who have technical knowledge and skills to monitor and manage their children’s online behaviours lead to the problem of the violation of their children’s privacy. Other than that, a problem that is called parental indifference also arises. This problem can be expressed as the parents’ lack of familiarity with the online environments used by their children, their lack of effort to be familiar with the environments, their ignorance of online risks, and their failure to take care of their children as they do not allocate enough time for their children. Therefore, based on the literature review, it is recommended that parents in the digital age should do the following:

- They should establish a healthy communication with their child.
- They should be aware that prohibitions and limitations would not be sufficient to eliminate online risks or protect the child in online environments.
- They should be a good role model for the child, with their own use of digital media and online behaviours.
- They should be more knowledgeable about online environments, and to do that, they should participate in various training sessions on the topic.
- They should ensure a strong trust relationship with their child, and thus, to ensure a relationship environment in which the child is able to comfortably come and tell the parent what s/he experiences.
- They should avoid behaviours that violate the privacy of their child.
- They need to allocate enough time for their children and use online environments together if needed.
- They should know that their child is more competent than themselves and take precautions accordingly.

#### Statement of Publication Ethics

During the writing process of this study titled “Online Environments and Digital Parenting: An Investigation on Approaches, Problems and Recommended Solutions”, scientific, ethical and citation rules were followed; No falsification was made on the collected data and the study was not sent to any other academic media for evaluation.

#### Conflict of Interest

There is no conflict of interest among the authors regarding the publication of this article.

#### Researchers’ Contribution Rate

Authors	Conceptualization	Method	Original draft preparation	Writing	Visualization	Supervision & Investigation	Reviewing & Editing
Ayça FİDAN	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Süleyman Sadi SEFEROĞLU	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



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## Appendix 1 Studies Examined in the Scope of Literature Review

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