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Opportunities and risks: A case study of young urban children’s online life in China

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Summary

It is a common phenomenon in China that 9-12 year old children spend a lot of time on the internet. From this study, it can be concluded that the time children spend online is different between boys and girls, and that boys tend to stay online much longer. In addition to this, the sites where children access the internet are not fixed, while children believe that the internet is safe and has brought them benefits. At the same time, some children showed their dependence on the internet. The top three behaviors of children’s online life are information searching, chatting and making friends, and playing games. The internet is not only a pleasurable experience for children but also troublesome. Most of the children’s online life is under adult supervision. Based on these results, it is believed that online life has brought convenience and developmental opportunities to young Chinese children, facilitating their learning and relaxation, but at the same time bringing them risks and crisis, especially the pain resulting from unsuitable content, exposure of privacy and internet addiction.

Keywords: young children, online life, computer education

1. Backgrounds

With the speed of progress in science and technology, internet technology is becoming a global power, which is changing the way of life and shaping the future of human beings. In cyberspace, people re-shape and re-identify themselves almost without any restrictions. No one can completely own and control the network. The network being a completely open space with numerous uncertainties and unlimited possibilities. In Beck’s (1986/2005) words, online life is a “risk society”, which exposes people to hope and threat.

According to a survey by the China Internet Network Information Center, by the end of 2008, 117 million people, accounting for 39.5% of internet users, are under the age of 18. This group is large and is growing increasingly. In 2008, the growth rate of teenage internet

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users was 56.1%, which is 14.2% higher than the national internet user’s average growth rate (Lijun Guo 2009). Not only that, teenagers also indulged in using the network much longer than adults. The survey showed that teenagers spent an average of 37.1 hours per week online, while the national average is just 16.2 hours per week (Lijun Guo 2009). Obviously, the internet has been integrated into the life of children and staying online has become a way of life for children.

Researchers investigated the online life of Chinese middle school students, and found that children spend an average of 3.02 hours a day online in the summer and winter vacations, and that usually there is an average of 1.38 hours every day after school (Baomin Li 2012). In some developed countries, children start to use the internet at age 3, while 5-8 year old children’s access to the internet is 38%, 9 to 11 years of age 76%, and 12-14 years old 89% (Baomin Li 2012). In China, internet users have also presented a similar trend, and pupils skilled at using the internet are not unusual. One obvious, although not parallel fact, is that most studies are focused on older children such as middle school students; the online life of young Chinese children under age 12 still lacks attention and research.

2. Purposes

This study aims to understand the basic characteristics of 9 to 12 year old children’s online lives in China’s central cites. In doing so, young children’s ideas and cognition of the network, behaviors, emotional experience in their online life as well as adult supervision is investigated. Based on this, the impact of online life on children’s learning and development is analyzed.

3. Methods

The research adopted the methodology of the case study. The case study approach is a “detailed examination of a single person, group, institution, social movement, or event” (Thomas and Brubaker 2000: 103). Robert Stake reminds us that “the real business of case study is particularization, not generalization. We take a particular case and come to know it well, not primarily as to how it is different from others but what it is, what it does” (Stake 1995: 8). He adds that “good research is not about methods as it is about good thinking” (Stake 1995: 19).

3.1. Sampling

Located in Chong Qing, a central city of western China, Xinhua elementary school has a history going back more than 60 years. The primary school has 1256 students in 6 grades and 24 classes. There are 65 teachers (including the principal and other administrative staff). In Chong Qing, Xinhua is one of the best primary schools, and on the campus there is 100% coverage. All the classrooms, office and dining rooms have free internet access. Compared with other schools, children in this one have more chance to access the internet. It is also the reason why the researchers chose it for their sample.
3.2. Data collection

Questionnaire is an important tool in the study, with researchers compiling the **The Questionnaire of Young Children’s Online Life (Age 9-12)** to help them with data collection. It consists of five dimensions, including the children’s basic information, their understanding of the internet, network behaviors, network experience and adult supervision and so on. Considering the individual background variables such as gender, class, and age, the researchers carried out proportional stratified sampling, inviting 160 subjects, including 82 boys, and 78 girls, 39 students in grade three and 42 students in grade four, 36 students in grade five, and 43 students in grade six. The average age is 11.3. The researchers issued 160 questionnaires and recovered 160. After eliminating 16 invalid questionnaires, the number of effective questionnaires is 144 (90.0%).

Open ended interview is also adopted, on the one hand, to try and understand more deeply the details of the children’s network life, on the other, owing to the need to interpret and carry out analysis of the results of the questionnaire. The main respondents include children, teachers and parents. For the children and teachers, the interviews were carried out face to face, while parents were interviewed over the telephone. The researchers used digital voice recordings, collecting the interview materials with the interviewees’ permission. The interview materials were also coded and filed. The basic information of the main respondents is shown in table 1 below.

**Table 1. The basic information of the main respondents**

<table>
<thead>
<tr>
<th>Number</th>
<th>Gender</th>
<th>Age</th>
<th>Identity</th>
<th>Supplementary information</th>
</tr>
</thead>
<tbody>
<tr>
<td>C₁</td>
<td>boy</td>
<td>11</td>
<td>grade 5</td>
<td>net age of three years</td>
</tr>
<tr>
<td>C₂</td>
<td>girl</td>
<td>9</td>
<td>grade 3</td>
<td>net age of one year</td>
</tr>
<tr>
<td>C₃</td>
<td>boy</td>
<td>10</td>
<td>grade 4</td>
<td>net age of one and a half years</td>
</tr>
<tr>
<td>C₄</td>
<td>girl</td>
<td>12</td>
<td>grade 6</td>
<td>net age of two years</td>
</tr>
<tr>
<td>T₁</td>
<td>woman</td>
<td>25</td>
<td>teacher</td>
<td>computer teaching</td>
</tr>
<tr>
<td>T₂</td>
<td>woman</td>
<td>36</td>
<td>teacher</td>
<td>the language teacher and head teacher</td>
</tr>
<tr>
<td>P₁</td>
<td>man</td>
<td>36</td>
<td>parent</td>
<td>engineer</td>
</tr>
<tr>
<td>P₂</td>
<td>woman</td>
<td>42</td>
<td>parent</td>
<td>cashier</td>
</tr>
</tbody>
</table>

4. Results and discussion

4.1. The basic situation of children’s online life

It is already a common phenomenon in China that 9-12 year old children spend a lot of time on the internet. In this study, 107 children have the experience of using the network (n = 144), accounting for 74.3%; only 37 children (n = 144) have no experience of the internet, accounting for 26.7%. One child said in their interview: “My desk mate wants to get on the internet, and she also has a computer at home, but her mother doesn’t allow her to use it.”(C₂)
Figure 1. Do you have the experience of using network?

Figure 2. Boys have the experience of using network

66 boy students (n = 74) have surfed the internet, accounting for 89.1%, and the number of girls is 41 (n = 70), accounting for more than 58.6%.

Figure 3. Girls who have the experience of using network
The children’s “internet age” is shown in table 2 below. It can be seen that Chinese children aged 9-12 who surf the internet are already a common phenomenon and this trend has shown signs of gradual expansion.

Table 2. The number of children with different “internet ages”

<table>
<thead>
<tr>
<th>Used the internet for the first time</th>
<th>Within the last half year</th>
<th>Six months to one year ago</th>
<th>One to two years ago</th>
<th>Two to three years ago</th>
<th>More than three years ago</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boy</td>
<td>8</td>
<td>12</td>
<td>21</td>
<td>14</td>
<td>11</td>
<td>66</td>
</tr>
<tr>
<td>Girl</td>
<td>5</td>
<td>9</td>
<td>14</td>
<td>7</td>
<td>6</td>
<td>41</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>21</td>
<td>35</td>
<td>21</td>
<td>17</td>
<td>107</td>
</tr>
</tbody>
</table>

As for online time, there are 40 children (37.4%, n = 107) who spend less than one hour online; the number above 4 hours a week is 19 (17.8%, n = 107). It is important to note that among children who spend more than 4 hours per week online, the boys account for 68.4%. It is obvious that there is a significant difference among children aged 9-12 with regard to their time spent online per week.

Table 3. The number of children with different online time per week

<table>
<thead>
<tr>
<th>Time spent on the internet per week</th>
<th>Within one hour</th>
<th>One to two hours</th>
<th>Two to three hours</th>
<th>More than 4 hours</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boy</td>
<td>24</td>
<td>16</td>
<td>13</td>
<td>13</td>
<td>66</td>
</tr>
<tr>
<td>Girl</td>
<td>16</td>
<td>9</td>
<td>10</td>
<td>6</td>
<td>41</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>25</td>
<td>23</td>
<td>19</td>
<td>107</td>
</tr>
</tbody>
</table>

As for a place to access the internet, there are 64 children (59.8%, n = 107) who accessed the internet at home, 79 children (73.8%, n = 107) who surfed the internet in school. The place to access the internet is not fixed. The high proportion of school internet surfing is related to the improvement of equipment in school. Few children access the internet in commercial internet bars because in China it is illegal to allow children under 18 to use the internet in commercial internet bars. Also, there are children who also use the internet at other people’s homes, such as a classmate or relative. One child said, “Sometimes when
my parents don’t allow me to use the internet, I would say that I will consult my homework problems with my classmates, and then I could surf the internet for a while at my classmates’ home.” (C3)

Table 4. The number of children with different online locations

<table>
<thead>
<tr>
<th>Location</th>
<th>Home</th>
<th>School</th>
<th>Internet bar</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boy</td>
<td>37</td>
<td>44</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>Girl</td>
<td>27</td>
<td>35</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>64</td>
<td>79</td>
<td>4</td>
<td>24</td>
</tr>
</tbody>
</table>

Figure 5. The number of children with different online location

4.2. Children’s perception of online life

Four questions were asked to investigate the children’s perception of online life, including “Do you believe the network can help you?”, “If there was no network, would you feel discomfort?”, “Do you think network life is safe?” and “Do you trust strangers on the internet?” There were 84 children who thought the network was helpful (78.5%, n = 107). In the case of assuming there was no network, there are 11 children who would feel discomfort (10.3%, n = 107). During the interview, one child said “I play network games for an hour every day, if one day I cannot access the internet, I feel uncomfortable, just like I lost something.” (C1) It was found that most children think the internet has brought benefits to them, but at the same time there are some children who show a certain degree of dependence on the network.

There were 89 children who thought being online was safe for children (83.2%, n=107). 96 chose to trust strangers on the internet (89.7%, n = 107). In connection with this, teachers and parents had different attitudes. Teachers thought that although children lacked awareness of network risk, their abilities could be enhanced to make better use of network rather than escape it (T2). However, parents showed a high degree of anxiety for children’s understanding of the network, “My child is a girl, the bar graph representing data showing bad information on the network is overwhelming, which will obviously have a negative effect on her health, in both her body and mind. I think the education of children depends mainly on positive guidance from school and family, rather than the exposure of children to the uncontrolled network environment.”(P1)
4.3. Children’s behavior of online life

Researchers listed 7 possible choices given as information searching, chatting and making friends, playing games, watching movies, listening to music, browsing for news and other. It was found that the top choice is information searching (62.6%), the second is chatting and making friends (59.8%), while playing games ranks as third (34.6%).

Xinhua primary school provides computer courses in grades 5 and 6. When the computer teacher talked about the purpose and tasks of computer courses, he said, “The popularization of the computer and network exists in many of China’s urban households; however, how to understand and use them correctly is the key. I teach courses lasting only 2 hours a week, but I still try to teach students some simple and practical computer knowledge and skills, and I also hope students can fully explore the role of the computer in their study.”

Chatting and making friends are common in children’s network life, this also relates to China’s “one child” Policy of Family Planning. Most urban families have only one child in China, which also motivates the children to contact with peers online. For network games, one child says, “one of my favorite games is Moore Manor (摩尔庄园), it’s easy and exciting, I feel very happy.” (C₄) Another child says, “I never play online games, and I think playing online games is a waste of time. In our class, the achievement of students who often play online games is not good.” (C₄) It seems that different children have different attitudes towards playing online games.

For the network behavior of children, parents prefer to see their children learning from the internet rather than making friends or playing games (P₁). At the same time, some parents think that the availability and convenience of the internet now means children lack guidance and supervision, “The child is very smart, even if you don’t allow him to surf the internet at home, he can find other places.” (P₂)

<table>
<thead>
<tr>
<th>Children’s behavior online</th>
<th>Information searching</th>
<th>Chatting with friends</th>
<th>Playing games</th>
<th>Watching movies</th>
<th>Listening to music</th>
<th>Browsing News</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>35</td>
<td>33</td>
<td>22</td>
<td>8</td>
<td>15</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>Girls</td>
<td>32</td>
<td>21</td>
<td>15</td>
<td>4</td>
<td>10</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>67</td>
<td>64</td>
<td>37</td>
<td>12</td>
<td>25</td>
<td>17</td>
<td>23</td>
</tr>
</tbody>
</table>

4.4. Children’s feelings of online life

Children were asked to remember and describe experiences of online life that had left a deep impression on them. Similar to the diversity of children’s behaviors, their feelings were also quite different.

“My class once held a debating competition, I was with the debaters in the anti-party. Because I found a lot of information online in advance, I did very well and won the title of the best debater.” (C₄)

“I once listened to music online, the website always automatically pops up some pages, and those pages seem particularly disgusting, so I felt uncomfortable but there was no way of shutting it off.” (C₄)
“The thing I feel most is that I met a good friend through the network, and her name is Xueqin, I like to chat with her almost every day, and almost for an hour, talk about our happiness and unhappiness.” (Cz)

“I hate the internet, because when I was playing Audition Dance Battle Online (劲舞), I met a friend, then I did not want to associate with him, and he has called me, but he also makes the things he and I share public on the BBS.” (C3)

As we can see then, the internet does not just bring children pleasant emotional experiences, sometimes it also makes them annoyed.

4.5. Adult supervision of children’s online life

In this study, there were 77 children (82.0%) who said their online lives were under adult supervision. One child mentioned, “My mom only allows me access to the internet one hour a day, after that she turns off the computer.” (C4)

Adult supervision is mainly by teachers and parents, but implemented in different ways. Teachers tend to guide children’s online behavior and parents mainly set limitations. Parents’ limitations consist of restricting access time (39.7%), the provision of homework before internet use (34.8%), and designated websites for children (19.6%). Some parents said the reason they limited access to the internet was that they were afraid for the children’s learning, “no matter how good the game is, good exam scores cannot be guaranteed.” (P2) Also, some parents think the child is too young, lacking in discernment, so that if the network information is not always good, and there is no interference, the consequences could be unimaginable. (P1)

5. Conclusion

5.1. Productive opportunities from children’s online life

Adults and children are of the same opinion, that the internet is used as a major educational resource by children, and that people use the internet for entertainment, playing, searching for information on a global scale, as well as communicating and sharing experiences with others at a distance (Hasebrink et al. 2009). In Xinhua primary school, over 70% of the children from 9-12 years use the internet. In addition to this, convenient conditions in school and at home further enhance the popularity of children’s network life. From the case study, the online life of young Chinese children has brought more convenience to their development, as well as opportunities. This convenience and the opportunities mainly relate to the accessing of information, communication, and entertainment promoting relaxation.

More than 60% of children in the samples use the network to acquire knowledge, and this is related to computer courses. Therefore, adults must help children to master the necessary capabilities of searching and filtering online information to enhance children’s learning on the network. China’s current family structure is not conducive to meeting the needs of children’s peer interaction, but the virtual online community provides a platform to share their experiences and to feel the joy of sharing between children or between children and adults. In addition, the network has brought more opportunities for children to relax, including entertainment. Chinese children in primary school with the pressure of long-term study or examinations, often reduce pressure by playing games, watching movies
or listening to music, however, the network undoubtedly also provides more freedom, as well as more choice for these activities.

5.2. Potential risks for children’s online life

As noted in one parent’s comments there is an element of worry, “My child is a girl; the overwhelmingly bad information on the internet would obviously have a negative impact on her physical and mental health. I think we should educate children mainly through schools and families, rather than let our children be exposed to the laissez-faire network environment.” (P1) Although using the internet seems to have become a new way of life for children, we cannot underestimate the potential risk. Children in the online world might be easily hurt. Firstly, children are likely to indulge themselves. Lots of children (17.8%) spend more than 4 hours a week online, while there is also a sign that internet addiction may appear in children aged 9-12 years. Secondly, children may be hurt by bad content such as disguised porn sites on the web, also violent language in chatting with their friends on the network may be accessible to children. In addition, as mentioned in the interviews, one of the potential risks is that the privacy of children may be exposed in using the network, as children disclose personal information online, and so might be the target of attacks, fraud and seduction.

6. Suggestion

No matter whether it is good or bad, “Children grow up in a media culture, which has become an integral part of their lives” (Montgomery 2007: 212). As one teacher mentioned in the interview, “to make better use of the network rather than escape the network”, the researchers do not think we should fear or be worried but must act to change. We should create a healthy and active network environment in which we can maximize networking opportunities, while minimizing the network risk for children. To achieve this goal, legislators, website operators, teachers and parents should work together to take effective measures, which should include but not limit. These could include: the introduction of a Network Security Protection Act, the development of appropriate websites and green software for children, as well as enhancing children’s insights and abilities.

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