Technological Measures Restricting Minors’ Access to Media Content and its Use in the Context of Media Education in Slovakia

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Abstract. The aim of this study is to investigate the issue of the usage of the technological devices that are able to prevent children and adolescents from accessing the media content and media technology. In the Slovak Republic, we investigated the current attitudes of the adult population to the usage of a TV Parental Lock. Within the frame of the representative survey which attended 2,815 respondents age 16-83, we found that there are significant statistical differences among the various age groups in terms of the awareness of the Parental Lock function. On the contrary, from a gender perspective, there are no statistically significant differences between women and men in their knowledge of the Parental Lock function. Major findings of the paper provided a broader discourse on the challenges of the parental media literacy, whose role should be to raise the awareness and knowledge level of the various technological solutions that eliminate minors to access the unwanted media content or place time-limits on the media usage.

Introduction and State of the Art

An important part of the media literacy among the adult population is as well as the knowledge of technological solutions excluding the minors from an inappropriate audio-visual content. Parents, who control the content of children’s television viewing, may feel that they are in a better position to share their values with children [1]. The least technically demanding solution is so-called the Parental Lock which allows blocking the TV channels and programs that parents or other adult household members deem inappropriate for viewing by children – the most often because of broadcasting explicit sexual content, pornography, extreme violence, and so on. Such a practice is part of a restrictive approach to the family media education. It allows parents to control the viewing of programs that are not in line with their values, moral principles and may pose a potential threat to the healthy psychological development of their child. Parental monitoring and ineffective discipline may be critically important tools in determining the link between viewing of violent content and later aggression in children [2].

The advantage of this solution is that it allows blocking not only the access to the entire TV station, but also it enables to choose selectively through PIN code specific TV programs or time slots when children should not be watching it (e.g. after 10pm). This kind of an attitude to the family media education may be justified because many minors have a television set in their own room or they are long time alone at home due to the work load of their parents. Parental controls tools are being used today to do more than just restrict the media content a family consumes. Many families use new technological tools and controls to tailor programming to their specific needs or values [3].

Our intention was to find out if there is a place for technological measures of the family media education in the Slovak Republic that deliberately and purposefully restrict access to the media technologies, services or its products. These restrictions are mainly created in order to eliminate deliberate approach of the underage family members to the selected media content or media devices. The best way to block out most violence is to use the age based ratings to determine what programs are not appropriate for children [4]. Technical and technological restrictions are in
Slovakia mostly related to the television and IT equipment connected to the Internet. The measures have the following characteristics:

**The TV Parental Lock**

The basic functionality of this technical means is to block access to programs that can pose a threat to a minor or an adolescent audience. This applies especially to TV with cable or satellite connection which can within the prepaid program offer also include channels with pornographic or erotic nature. Parental restrictions from the point of view of blocked television channels do not need to be limited to such explicit expressions of media communicators, which are by their nature intended exclusively for an adult audience. After activating the Parental Lock, it is possible to block any TV channels which can be watched only after entering a PIN code. In some cases, the adapted technology of the Parental Lock allows not to block the entire TV channel, but only a few pre-selected television programs. To protect children from inappropriate programs, this variant is very useful as it eliminates access to precisely specified programs which the parents believe are not suitable for their offspring.

**Means of the Parental Control on the Internet**

There are different types of the application programs that provide filtering and monitoring services of the activities on the Internet. By these means of the Parental Control, it is possible to limit access to the selected types of websites. At the same time, it enables to check the time that children spend on the computer, laptop or mobile device with an internet connection. Parents can block or monitor using social networking sites and playing computer games. The Parental Control software allows recording user activities and limiting the installation of selected types of programs on the computer and so on. The Parental Control feature can be also activated on the mobile devices (smartphones) and tablets. Also, directly in the Windows and Mac OS X operating systems it is possible to set time limits for the computer usage, access to computer games and programs.

The first category of the Parental Control programs is so-called filters. There are available free and paid applications that can filter content and limit access to websites which contain predefined keywords (e.g. sex, porn, etc.) or visual display of these keywords in the form of photos, videos and so on. The filters can be installed directly to a personal computer, a laptop, tablet or mobile phone. An alternative is to enable filtering for the specific household directly at the internet service provider. The problem of some filters is that is slows down the computer's operation. It can also worsen parents’ relations with their children. In addition, many older children and adolescents are very computer savvy and if they wish, they can, without the knowledge of parents, easily circumvent these forms of access blocking.

The second category of the Parental Control programs is so-called monitoring. In particular, it permits a detailed overview of the different types of activities on the Internet. If a parent is interested in tracking what his children do on the computer or if he wants to limit the time that they spend in front of the screen, he can prohibit access to certain websites or block certain programs by the technical measures. There is a variety of application programs that provide filtering and monitoring services of activities on the Internet. It detects early various pathological manifestations, such as excessive online gaming, cyber bullying, gambling, unwanted child communication with Internet aggressor or deceiver, and other risk manifestations. Experts in the Internet security recommend making an agreement with a child which functions of the Parental Control will be activated and explain him sensitively the reasons for this step [5].

**Materials and Methods**

According to a quantitative online survey, Child Safety in the Area of Internet and Mobile Phone Usage, realized in 2008 by the organization eSlovensko the form of children internet and mobile usage strongly depends on the child age. While the form of parental control of teenagers is based on the communication with their teenage children about the safety internet actions, children aged 6-9 years are directly controlled by their parents. However, some parents are not interested at all in the
children's online activities or they are interested only sporadically. This concerns mainly the parents of teenagers (37%) and partially the parents of children aged 10 to 15 years (18%). The results of this survey show that in Slovakia, only a quarter of the parents use the software or hardware on the home computer to filter and block access to unwanted websites. [6] The above research did not address the usage of the TV Parental Lock. In connection with the fact that on this issue, in Slovakia, there is no available research data, we decided to find out whether adult citizens in Slovakia know about the TV Parental Lock function that is one of the ways of the family media education.

We carried out the representative survey concerning the usage of the TV Parental Lock on a sample of 2815 respondents aged 16-83 years, while the collection of the data was realized in all regions of Slovakia. The research sample reflected the following socio-demographic characteristics of respondents - age, sex, education, region, size of the place of residence and household income. The collection of research data gathered in the field was conducted by the method PAPI (Paper and Pencil Interviewing). It attended 200 trained interviewers who physically recorded the answers of the respondents to the recording sheets. Collecting of the research data ran from March to June 2014. Thereafter, we did a statistical evaluation of the results in the IBM SPSS, data analysis and statistical testing of the hypotheses through pivot tables and Pearson's chi-squared test. This research probe was a part of the broader research project aimed to determine the level of media literacy among the adult population in Slovakia. [7] In this study, we focus only on the selected segments of the research data concerning the usage of the Parental Lock as the technological measure in the context of the family media education.

During the evaluation of the data, we used the principles of inductive statistics. For testing the selected statistical hypothesis, we used the chi-squared goodness-of-fit test which is based on frequency tables and it tests the null statistical hypothesis. It assumes that the frequencies within each category are equal to the expected (theoretical) frequency. In testing, we set against two contradictory hypotheses. The hypothesis that we want to validate, we call the null hypothesis. Against to the test hypothesis, we set so-called an alternative hypothesis. The null hypothesis generally states that the variables in a population that is the subject of our tests are independent of each other and that in the various socio-demographic groups in the population were not statistically significant differences. The alternative hypothesis, on the contrary, supposes the existence of statistically significant differences, namely that examined variables in the base set are related.

Discussion

Numerous tools and methods exist by which parents can restrict consumption of objectionable television programming in the home and tailor the video programming their children see on their various media devices [8]. Within the statistical testing of the first pair of hypotheses, we tried to verify if there is a significant correlation between the age and the awareness of the TV Parental Lock function. In the second pair of hypotheses, we investigated if there are any existing gender differences in relationship with the TV Parental Lock functions. Respondents were asked whether they know about the TV Parental Lock and its features. More than two-thirds of respondents answered positively and only 21.2% said that this technical solution is unknown to them. The distribution of the responses from a gender perspective is interesting. Among respondents who showed the spontaneous awareness of the Parental Lock were 80.6% of men but only 22.9% of women. In terms of age, the largest knowledge about the Parental Lock hold people in the working age (35-44 years), the group living in households in which is assumed the highest occurrence of minors. The least respondents responding positively to this question are found in the senior age group (44, 4%).

The statistical tests confirmed that concerning the age the analyzed data are statistically significant. The null hypothesis \( H_0 \) was not confirmed. At a significance level \( \alpha = 0.05 \), was adopted the alternative hypothesis \( H_1 \) which claims that there is a significant correlation between the age and the knowledge of the TV Parental Lock function (Pearson Chi - square \( \chi^2 = 304.457 \),
df = 5). This means that at the various age groups of the adult population exist significant differences in understanding of the TV Parental Lock function.

In the case of the data analysis based on gender, we found that the analyzed data are not statistically significant. In this case, at the significance level $\alpha = 0.05$ we adopted the null hypothesis which claims that there is no significant correlation between gender and the knowledge of the Parental Lock function (Pearson Chi - square $\chi^2 = 0.025$, df = 1). This means that between men and women in the adult population there are no statistically significant differences in proficiency of the Parental Lock function.

In response to the previous question, we investigated whether the respondents also use the Parental Lock. We have found that this technical option is not frequently used. Only 9.1% of asked respondents who live in a household with a minor child does use the Parental Lock. 11.1% of respondents, who live in families with children, were unable to say whether the Parental Lock is activated or not in their household. The level of the knowledge is influenced by the education and income level. The highest level of knowledge of the Parental Lock function had people with the higher education (Bachelor degree = 87.2% Master degree = 85.4%); the lowest level of knowledge had respondents with primary education (54.5%).

**Conclusion**

In our understanding, the media education is an educative process during which an individual acquires media literacy or expands his media literacy. Media literacy is the output category of media education as a set of adopted (acquired) skills in the context of a prudent and responsible handling of the media and their products [8]. The study results of the awareness level of the Parental Controls among the adult population in the Slovak Republic showed that the most significant distribution in this area concerns the age difference. Across the various age groups were found significant differences involving the element of the family media education. We found that with increasing age the level of media competence and critical thinking decreases. For this reason, we consider it necessary to pay more attention to non-formal educational activities aimed at parents and grandparents. Awareness-raising activities regarding the usage of the Parental Lock and Internet filters should be more widely implemented by the Council for Broadcasting and Retransmission, which is in Slovakia regulatory authority in the broadcasting sector.

These education and awareness activities can be implemented not only in the form of seminars and workshops but also in the online world - e.g. through social networking sites and articles on websites designed for parents.

**References**


