

# State of the Art on Serious Gaming & Internet Safety Skills

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## 1. Introduction

[2-3 paragraphs - a) introduction to the topic, b) importance of the topic, c) summary of the report]

From year to year, access to the Internet and other telecommunications services is becoming more and more common. In 2021, almost 85% of Polish population use the Internet. Over 66% use social media. This is due to many factors - government policy and legal regulations, technological development, competition on the free media market, falling prices, etc. Having access to the network becomes a necessary requirement for good functioning in public life. This applies not only to private individuals, hence owners of computers connected to the Internet, owners of mobile phones, smartphones, etc., but also enterprises and state and social institutions, giving the possibility of using the Internet in the workplace.

Thanks to social networks (the possibility of maintaining contacts and making new, communicating, dealing with everyday matters, etc.) the global network is becoming an important space for social life. However, it is not difficult to notice that the internet also has many negative effects. Researchers emphasize that to the web permeates everything we know from real life, including undesirable phenomena. So you should mention pedophilia, pornography, theft, various types of crime, terrorism etc. Taking into account the ever stronger dependence between the real world and virtual and the fact that the amount of information in the network, including information, is constantly increasing crucial for the safety of each of us, precisely to the issue of security more and more importance must be attached.

### Summary

The knowledge of issues related to the security of using the Internet is growing every year, however, as research shows, many Internet users are still victims of various frauds, crimes, and cyberbullying. In Poland, there are organizations, projects are being created, platforms that teach how to use the Internet safely. However, it is difficult to say how large a group of recipients uses these resources. It is imperative to develop good and attractive Internet safe teaching strategies.



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## 2. Application of serious games to enhance Internet Safety Skills

*[1-2 pages - empirical studies that have been conducted in your country or existing resources, projects or platforms related to Internet Safety Skills]*

The problem of internet security has been discussed in many Polish publications. Our research allowed us to select more interesting publications.

IAB Polska compiled a report on online privacy in 2017. Here are the most important conclusions:

- The Internet is seen as a public space. In addition to private websites other websites are perceived as public space, or at least partially public.

- There is an increasing level of awareness and knowledge of privacy. Internet users more and more often

use various types of security (e.g. clear browsing history more often, delete cookies). They also post their photo on the web less frequently.

- Despite the growing public awareness of privacy, some users still believe that they are insufficiently informed about it. Further education is required on cyber-security.

- A significant percentage of web users prefer matched content and ads. Determined most are aware of the principles of the digital environment and - although a fact collecting data may be disturbing for some - they see the benefits with content personalization.

- The results of the study indicate that the use of bans, restrictions and limitations in space digital is perceived negatively by Internet users, and even irritates them too much the level of approvals they must give and accept from various settings. It is advisable to go out meet their expectations and minimize the level of irritation and invasiveness, which may result in side effects in the form of discouraging use from digital resources.

- A sense of security and awareness of privacy issues should be increased through educational activities that should be carried out by all entities shaping the environment digital - both on the side of service providers and regulators.

In 2018, Ipsos presented the results of its research on children's safety on the internet.

The study, which involved 1,000 parents of children aged 7-15 and 300 teachers, shows several important conclusions:

- Children spend a lot of time on the Internet. So much so that parents often feel anxious.
- Most parents combine controlling children's activity with setting rules. Control and trust are not mutually exclusive.
- Apart from the parents, the school plays the greatest role in keeping the child safe online. Teachers do not run away from this responsibility.
- It is not always easy to talk to your child about safety. For teachers, the so-called difficult topics. Sometimes they also lack technical knowledge.
- Teachers use a large number of sources of information, many of which are intended to be professional, but still want to deepen their knowledge. This suggests their openness to the new educational program.
- The key to reaching parents may be smart word of mouth marketing and recommendation from other acquaintances, friends, other parents of children from the same class / school and teachers.

### **Polish projects and institutions dealing with internet security.**

1. Polish Safer Internet Center (PSIC) was established in 2005 within the European Commission's Safer Internet Programme and is currently operating within the Connecting Europe Facility Programme. The Center is run by the Empowering Children Foundation (Fundacja Dajemy Dzieciom Siłę - FDDS) and by NASK - National Research Institute - acting in the capacity of the Center's coordinator. The Center undertakes a number of comprehensive efforts aimed at improving the safety of children and young people using the internet and new technologies.
2. The campaign against online discrimination The campaign's topic is online discrimination based on sexual orientation. It focuses on the problem of violence against LGBT youth, which was identified by helpline consultants as one of the significant problems affecting young people in Poland.
3. Hotline campaign against sextortion Campaign devoted to the problem of producing and distributing self explicit materials by children and teenagers.

### **Educational tools /platforms**



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Innovation Frontiers  
Mind is the limit

 **technologos**  
pushing the boundaries



[“Mr. File and Mr. Folder – on paths of the internet” - performances for children](#)

[Podcasts of the Polish Safer Internet Center „Keeping Children and Young People Safe Online”](#)

[Sieciaki.pl - educational portal and new resources](#)

[Digital Youth project](#)

[SELMA – an European project against hate online](#)

[IMPACT - Cyberbullying Prevention Programme](#)

### 3. Training approaches

[1-2 pages – Conduct a brief desk research to answer the following questions:

1. Which approaches have been used to support training in Internet Safety Skills?
2. Which tools have been used during the training?
3. What learning difficulties in that subject have been reported?]

The approach to teaching internet safety consists of several principles:

- developing electronic security policies and procedures that will help mitigate risks and respond to concerns
- providing teachers with the knowledge needed to teach students about e-security
- teachers' giving advice on the use of social media and live broadcasting
- supporting and involving parents and guardians, sharing helpful advice and resources
- regular updating of e-security knowledge.

Teachers should teach students:



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- verifying someone's identity
- verifying link security
- identifying internet fraud
- privacy protection
- creating and using passwords
- identify, not participate and contain cyberbullying.

They should also:

- explain to the students what a digital footprint is
- help the students detect phishing
- encourage positive communication online.

During the trainings, platforms dedicated to network security are used, and ready-made lesson plans prepared by institutions involved in teaching security in the network. Schools also benefit from training courses organized by external institutions.

When asked about the difficulties related to teaching how to use the Internet safely, teachers report that students declare that they know the issues related to this topic very well and that they often do not want to actively participate in classes. In practice, it turns out that they very often do not know how to avoid threats on the Internet, but they do not want anyone to restrict their freedom of surfing the Internet. They are not always comfortable with the content and methods used by teachers in the classroom. Sometimes they find them unattractive, boring, schematic.

## 4. Conclusions and recommendations

*[Summarise your results and draw some conclusions based on the results. Include also some recommendations for the learning design concept of the game based]*

Polish resources on teaching Internet safety are quite rich, but teaching how to use the Internet safely is often limited to conducting a few lessons. It is difficult to say to what extent the available materials are used in schools.

Based on the analyzed research, it can be concluded that the declared knowledge of Internet safety rules does not always coincide with the actual state of affairs. It is necessary to constantly update knowledge about the risks associated with using the Internet. It is worth creating new resources, platforms, materials and applications that would support the process of teaching the principles of safe use of the Internet in schools.

On the basis of conversations with students about computer games, it can be concluded that effective game-based teaching tools should:

- focus on an Impressive start to capture the learner's attention right from the start
- give the players continuous challenges, each of which leads to another challenge, to keep them "hooked" on playing a game
- have interesting storyline
- combine fun and realism
- have an element of risk



- ensure that a game is challenging

We need to make sure that the game is as intrinsically motivating as possible. The actual key activity in the game must be interesting and engaging. Motivation should be in tune with the requirements of good gameplay like good balancing, a well tuned rewards system, varied consequences, and quick user feedback

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