National Cyber
and Information
Security Agency

Národní úřad
pro kybernetickou
a informační bezpečnost

Jsem Netvor
Tvor, který žije na netu

I am the Netizen!

About the educational activity

What does it mean „the Netizen"?

In the videos, you can hear: "I am a monster.". This is simply a translation of the Czech word „netvor" and in the Czech language it is a pun. The word can also be translated as "netizen". It is created by combining two words – the Internet and citizen. Netizen has the same meaning as the Czech word „netvor".

Who is the target group for the activity?

The target group are pupils of 8th grade to 9th grade at lower secondary school as well as students of grammar schools aged between 13 - 15 years.

What is the activity about?

The purpose of this interactive online course (MOOC) is to raise awareness of ethical, social and cyber security aspects of the use of digital technology. The course includes a video zone for students and an educational zone for teachers and lecturers. The video zone consists of an introduction, where the main concept is explained. The explanation is followed by nine thematic sections - AI, internet and law, secure password, IoT, mobile app security risks, secure payment, white-hat and black-hat hackers, phone´s lock screen, end-to-end encryption. Each of them includes a thematic video and an influencer´s reaction to the video. The didactically important element is an interactive quiz, thanks to which the students remain active during the lecure. At the end, students can fill out an evaluation form and express their opinion on the activity.

The educational zone consists of lessons on the same topics as the videos. These lessons further develop the content of the videos. Students learn to think about all aspects of digital technology, to work in groups and to present their personal opinions and views. Each of the lessons includes methodology for lecturers and worksheets for students.

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About the design of the activity

Why and how was this activity created?

There was no available MOOC focused on raising awareness of ethical, social and cyber security aspects of digital technology in the Czech Republic before 2021. In cooperation with Czech elementary schools we interviewed more than 3 000 pupils (2020). We asked them about their interests in the field of cyber security and digital technology. Based on their answers, we have prepared screenplays for thematic videos. The key to success was to find an influencer who would become the main character of the videos and also other influencers who would then react to the thematic videos. The production of these videos was done by students of a prestigious Czech high school. One of our goals was to be able to use the activity as a regular part of school practice. A model lesson was created for each video. Teachers and librarians participated in the creation of these model lessons.

Try the activity

Where can you find the activity?

The activity is in the Czech language. If you do not speak Czech, do not panic! You can turn on automatic translation for the videos on YouTube. We know this is not the best way but at least you can get an idea of what the videos look like. You can try this video for example. Do not forget to have a look at an influencer´s reaction to the thematic video here. We also prepared one model lesson in English. You can find it at the end of this document. You can find the whole educational activity on the website www.jsemnetvor.cz.

and why hospitals are an interesting target for them.

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What can we provide to the EU Awards?

We wrecked our brains with what we could provide to the EU Awards. It is too complicated to share the MOOC and have it translated into many other languages. But we can provide nine thematic videos, nine influencer´s reactions and also nine thematic model lessons for teachers because we believe these are the most important part of this educational activity. We can provide the best and fully functional example of the best practice aplied.

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Lesson plan:

Topic: Hnusvirus.exe 🇨🇿 🤢
Topic: Virushorribilus.exe 🇬🇧

Target group: 8th grade – 9th grade

Time: 45 – 90 minutes

Level: 3/5

Education goals:

- Pupil knows the basic logic of cyber attacks that threaten companies and organizations.
- Pupil can search for information and draw the conclusion that leads to a solution of a problem.
- Pupil devolops their comunication skills and ability to work in a group.

Teaching props:

- A computer with Internet access and a data projector or a computer / a tablet / a smartphone with headphones
- Pens or pencils for each pupil and flip-chart for the teacher
- Worksheet for each pupil (page No. 6)

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Used teaching methods:

Inspired by: ČAPEK, Robert. *Moderní didaktika: lexikon výukových a hodnotících metod.* Praha: Grada, 2015. Pedagogika. ISBN 978-80-247-3450-7

*   **The brainstorming part:** The teacher asks a question or introduces an issue. Pupils think and share their ideas. The teacher makes notes on the flip-chart. No idea can be criticized or rejected. The teacher writes down all of the ideas on the flip-chart, even repeatedly. The brainstorming supports freedom of thought. The goal of this method is to capture and display maximum potential ideas for a question /an issue.

*   **The Venn diagrams:** Venn diagrams are used to graphically record issues, topics or to analyze a text. Venn diagrams are useful for illustrating the characteristics or relationships of two different topics which have something in common. Each topic has its own circle. The shared characteristics are noted into the intersection of the two circles. See the page No. 6 for more information.

Lesson: Hnusvirus.exe (Virushorribilus.exe)
Lesson designed by: David Kudrna & Petra Sobková, Education Unit of NÚKIB

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The pupils´ expectations

Talk about the pupils´ expectations in order to avoid misunderstandings. Present the tool "I am the Netizen". Inform the pupils that in this lesson they will try to understand how hackers work and what motivation they may have for cyber attacks. Tell the pupils they will watch a video with a youtuber, work in groups and think about cyber attacks. Some of the pupils may not understand what cyber attacks mean. Give them some examples of the most famous cyber attacks in your country. Tell them that cyber attacks happen every single day all around the world. Because of that it is necessary to understand their logic.

The evocation phase (10 – 20 minutes)

- Introduce the method "brainstorming" to the pupils and explain its basic rules. See the text on page No. 2 for more information. Ask a key question: "**What makes a person a hacker?**". The pupils´task is to think about this issue and to express their opinions and ideas. Jot down all of the ideas on the flip-chart.

- Support the pupils to think outside of the box. You can ask questions: **Is the hacker a millionaire? Does he answer to the local authorities? Is he or she a part of the underworld? Where did he or she learn to hack? What does such a person look like?**

- Set a time limit. Do not spend more time on this activity than necessary. If the pupils have no ideas, finish the activity and have the pupils divided into groups. Ideally, there would be four pupils in a group. Challenge the pupils to find a spot for their group in the classroom.

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The phase of realization of meaning (20 – 40 minutes) 🧠

- Play video "Hnusvirus.exe" to pupils or tell pupils to play the video themselves. You can find the video [here](#).

- Tell the pupils that it is important to focus on the difference between white-hat hackers and black-hat hackers. This information will be needed to continue the activity.

- The next group activity is to fill out the Venn diagrams. Introduce the pupils to the Venn diagrams method and explain its basic rules. See the text on page No. 2 for more information. Give each of the groups one worksheet. You can find the worksheet on page No. 6.

- Tell the pupils to use the Venn diagrams to define the characteristics of black-hat hackers and white-hat hackers or their relationship. It is also important to think about the intersection of the circles. Sometimes it is not easy to find what the white-hat hackers and the black-hat hackers have in common. Support the pupils to use the information from your previous brainstorming, they are also allowed to search for information online.

- If you see that the pupils have completed their task, it is time to reflect the activity and to present outcomes.

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The reflection phase (15 – 30 minutes) 💬

- Draw the Venn diagram on the flip-chart and ask the pupils for their solutions. Ask the pupils about both parts of their diagram and also the intersection of the circles. Give the floor to pupils to explain their solutions and ideas.

- Try to find a common solution and write it on the flip-chart. Try to mark the position of the Anonymous together on the diagram.

- End the lesson with a discussion. It is necessary to anchor new knowledge. You can use these questions:

    - Which kind of information can hackers get from a bin?
    - Do you think there are more black-hat hackers or white-hat hackers?
    - What does a hacker have to know to be successful in their job?

- Lastly, show to the pupils activity "I am Netizen" and encourage them to watch the other videos with influencers.

The potential risks 🤔

- It is important that the pupils know the methods of active teaching. It is key to explain the methods (the Venn diagrams, the brainstorming) well. See the page No 1 for more information.
- Sometimes the pupils in the group do not agree with the position of Anonymous (the Venn diagram). You can remark that sometimes the Anonymous break the law or even make mistakes. For example they falsely stigmatized an innocent man for being responsible for the death of a cyberbully victim.
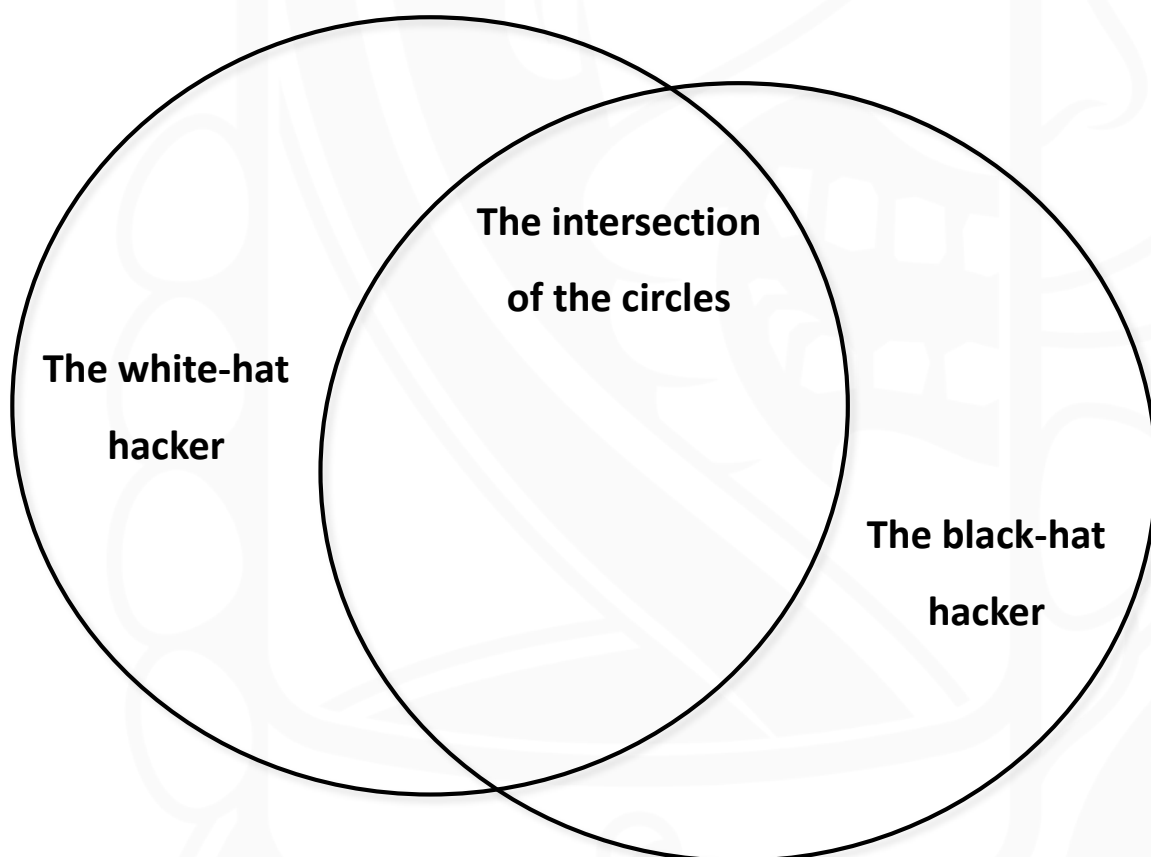
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The worksheet for pupils:

Hnusvirus.exe (Virus horribilus.exe) 🤢

Let´s divide into groups. Make a Venn diagram. Think about white-hat hacker and black-hat hackers. Are they similar or different? What is typical for them? Write the behavior they have in common into the intersecting part of the circles. You can search for information online.

The white-hat hacker

The intersection of the circles

The black-hat hacker

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