



# of CC-DRIVER and RAYUELA projects:

## Overview investigate, identify, understand and explain drivers of juvenile cyberdelinguency.

Valencia Local Police, Project Management Division. Rubén Fernández



EUROPE/ PROJECT







### **CYBERCRIME LANDSCAPE**



# Which is the current state of cybercrime?

"Cyberattacks are the fastest growing crime and predicted to cost the world \$10,5 trillion by 2025".

### - Steve Morgan (Cybersecurity Ventures)







### **COVID-19 HAS BOOSTED CYBERCRIME**



Distribution of the key COVID-19 inflicted cyberthreats based on member countries' feedback. Source: Interpol



### **2021: THE YEAR OF SUPPLY-CHAIN ATTACKS**



### **ENISA Threat Landscape for Supply Chain Attacks**

Source: Enisa report "Threat Landscape for Supply Chain Attacks"



### **CYBERCRIME-AS-A-SERVICE IS ON THE RISE**









Source: Trend Micro



### **MALWARE ATTACKS ARE EXPANDING**

- Shift to high-value targets
- Mobile malware
- Banking trojans







### Source: Nokia Threat Intelligence Report 2021

### **IOT BOTNET ACTIVITY REACHED A NEW HIGH**

### 100% growth in IoT device infection rates from 2019 to 2020

Figure 13. Security vulnerabilities identified, 2021 - 2021

45 000	
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40,000	
35,000	
20.000	
30,000	
25.000	
20,000	
15,000	
10.000	
10,000	
5,000	
0	I the part of the
	2010 2011 2012 2013 2014 2015 2016





Source: Nokia Threat Intelligence Report 2021



### THE IMPACT OF CYBERCRIME

- Physical and psychological safety
- Societal security and stability
- Risk to infrastructures and networks
- Decline in trust in online services
- Harm to legitimate uses of technology





### **CYBERCRIME AND TEENS**

### • AS AN OFFENDER

## 17 years: Average age CaaS: No technical knowledge needed







### AS A VICTIM

. . .

# Online grooming Human trafficking Cyberbullying

### **CYBERCRIME AND TEENS**

• PSYCHOLOGICAL PROFILE •

Prone to risk-taking Impulsivity Poor self-control Social awareness Anti-establishment





### • KEY MOTIVATIONS FOR YOUNG CYBERCRIMINALS

Completing the challenge Sense of accomplishment Proving oneself to peers

### **CHALLENGES FOR LEAS**

- Limited human and financial resources
- Capacity and training
- Tools and technologies outdated
- Ethical, data protection and social constraints
- National borders







### **CC-DRIVER PROJECT**



- Understanding human and technical drivers of cybercrime
- Reduce cybercrime
- Deter young people from a life of crime
- May 2020 April 2023
- EU H2020 funded: €5 million



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 883543



# **CC-DRIVER**

- CC-DRIVER CONSORTIUM
- CC-DRIVER RESEARCH
- CC-DRIVER KEY OUTCOMES
- CC-DRIVER LEA WORKING GROUP
- LEA WORKING GROUP APPROACH
- LEA WORKING MEETING STRUCTURE
- LEA WORKING GROUP ADDRESSED TOPICS
- LEA WORKING RESULTS
- LEA WORKING GROUP RESULTS











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### **CC-DRIVER RESEARCH**

- Human and technical drivers of cybercriminality
- Special focus on juvenile cyberdelinguency
- Techniques and tactics of cybercriminals
- Special focus on cybercrime-as-a-service
- Country-specific knowledge regarding:
  - Cybersecurity policies
  - Cybercrime legislation





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### **CC-DRIVER KEY OUTCOMES**

# **JOURNAL ARTICLES**





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### **R1** — Landscape Study of **Cybercrime-as-a-Service**

WP2 — Scoping Cybercriminality and Technical Capabilities



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Researching cybercriminality to design new methods to prevent, investigate and mitigate cybercriminal behaviour.



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Researching cybercriminality to design new methods to prevent, investigate and mitigate cybercriminal behaviour.

### **D5.1** — Review and gap analysis of cybersecurity legislation and cybercriminality policies in eight countries

### WP5 — A cybercrime policy toolkit



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The CC-DRIVER policy briefs provide insights into current cybercrime trends and threats. They may either be directly derived from the consortium's research activities within the project's framework or address highly important developments that fall into the research interest of CC-DRIVER and require a thorough discussion and the conception of clear counter-measures.



No1 February 2021 **The Russian Hack and EU Policy Options** 



No 2 September 2021 The Technical Drivers of Cybercrime



No 3 October 2021

**Review and Gap Analysis of Cybersecurity Legislation** and Cybercriminality Policies in Eight Countries



No 4 May 2022

**Challenges in Measurement of Cybercrime** 



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### **CC-DRIVER LEA WORKING GROUP**

- Discussion group of LEAs
- Exchange of experiences
- Exchange of best practices
- Specific focus on cybercrime
- Human, social and societal aspects of security problems





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### LEA WORKING GROUP APPROACH

- Exclusive to LEAs (addressing specific LEA issues)
- Cybercrime related topics, with special focus on juvenile cyberdelinquency
- Topics for discussion open to proposals from LEA participants
- Open to participation from any LEA





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### LEA WORKING GROUP MEETING STRUCTURE

- Trend of the addressed topic in participating countries • Specific question/s addressing the topic
- Challenges faced by LEAs
- Best practices (initiatives, tools, resources...)
- Recommendations for further action





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### LEA WORKING GROUP ADDRESSED TOPICS

LEA WG has so far focused on:



### Next edition (mid June, 2022): The role of gender in cybercrime

(For participation, please contact us by email to "proyectosplv@valencia.es")

grooming



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raising

hate speech

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### **LEA WORKING GROUP RESULTS**



The CC-DRIVER LEA Working Group is a discussion group of Law Enforcement Agencies (LEAs) that aims for an exchange of experiences and best practices with a specific focus on cybercrime. These meetings are a safe space for LEAs to discuss about the human, social and societal aspects of security problems and their remedies.

The LEA Working Groups are one hour-long conference calls organised by Valencia Local Police on a quarterly basis, being open to any LEA external to CC-DRIVER.

### Anonymized reports from each edition publicly available in CC-DRIVER webpage



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### **CC-DRIVER FURTHER INFORMATION**



https://www.ccdriver-h2020.com/



@CcdriverH2020



CC-DRIVER Project



**CC-DRIVER** Project



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### "Empowering and educating young people for the Internet by playing"

Starting date: Oct 1st 2020

**Duration:** 36 months

**Funding:** € 5M



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- SUMMARY AND GOALS
- **PARTNERS**
- **RESULTS**
- LEA CLUSTER



TECHNOLOGY



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SUPERVISED TESTING GROUPS ANDROID/IOS MARKETS DATA TRACKING CAMPAIGNS



- SUMMARY AND GOALS
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- SUMMARY AND GOALS
- **PARTNERS**
- RESULTS
- LEA CLUSTER

## **Overall contributions**

- **Prevention:** the minors will seamlessly acquire good online practices in a safe environment by playing the game and learning from their errors without risk.
- Mitigation: data gathered through the game will be processed and interpreted to generate evidence-based recommendations, policies and measures.







- SUMMARY AND GOALS
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### LEA CLUSTER (CURRENTLY COMPOSED BY 17 EU PROJECTS)

















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**EUROPEA** PROJECT

