RAYUELA NEWSLETTER

Cybersecurity is one of the Commission's priorities in its response to the Coronavirus crisis, which has witnessed increased cyberattacks. RAYUELA (01/10/2020-30/09/2023) is a project specifically conceived to address this sensitive issue, offering an unprecedented response in full alignment with the key objectives of the Commission's Research and Innovation framework programmes. RAYUELA brings together law enforcement agencies, sociologists, psychologists, anthropologists, legal experts, computer scientists, ethicists, philosophers and engineers to develop innovative methodologies for enhanced cybersecurity. The stakeholders involved will achieve a better understanding of the factors affecting online behaviour related to new digital attack vectors and cyber-criminality, and boost the potential of young talents in the adoption of cybersecurity and advanced technologies.

RAYUELA's main goal is to better understand the drivers and human factors affecting cyber-criminality, thus empowering and educating young target groups to a more conscious and aware use of the Internet through gaming, in a preventive and mitigating action to reduce cybercriminal behaviour.

Grant amount received from the European Commission for this project will be spent on various tools and activities, including development of the online game for children, teaching and educational materials, conferences, workshops and other events.
The stakes are high, but we are convinced that we can deliver if we remain motivated and committed to working together efficiently and effectively. We are very proud of this project and eagerly looking forward to its impact and success in the near future!

Team Rayuela

WHAT YOU WILL FIND IN OUR NEWSLETTER

RAYUELA
a fun way to fight cybercrime

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PROJECT IN A NUTSHELL

RAYUELA aims to bring together law enforcement agencies (LEAs), sociologists, psychologists, anthropologists, legal experts, computer scientists and engineers, to develop novel methodologies that allow better understanding the factors affecting online behaviour related to new ways of cyber criminality, as well as promoting the potential of these young talents for cybersecurity and technologies.

RAYUELA's main goal is to better understand the drivers and human factors affecting certain relevant ways of cybercriminality, as well as empower and educate young people (children and teenagers primarily) in the benefits, risks and threats intrinsically linked to the use of the Internet by playing, thus preventing and mitigating cybercriminal behaviour.

Project focuses on cybercrime, which has a significant cross-border impact among the EU countries, but also outside the EU. Specifically, the document is addressed to cybercrime related to children, teenagers and young adults, which happen to be one of the most vulnerable populations in the EU, who must be protected and nurtured to stay safe online.

RAYUELA proposes a series of solutions to help the EU in the prevention, investigation and mitigation of cybercrime related to online grooming, cyberbullying and human trafficking, while incorporating the perspective of gender and cultural diversity.

Dissemination of the project's activities and results are essential for the successful exploitation of the innovative solutions developed by RAYUELA. RAYUELA's innovations offer high replicability across the EU. The need to raise awareness across value chains is directly related to the success of the project.

RAYUELA's consortium brings together 17 partners from 9 different EU Member States (ES, BE, SK, EE, PT, UK, GR, LV, DE). The consortium has been built with great care, looking for a group of excellent partners with proven expertise and who can fully provide the necessary know-how in the fields addressed by the project.

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RAYUELA ON 2021 SPANISH CYBERSECURITY RESEARCH CONFERENCE (JNIC 2021)
10th of June 2021

JNIC is a scientific congress that promotes the exchange and discussion of ideas, knowledge, and experiences between the academic and research network together with professionals and companies. Researchers and professionals participate at a national level to show the results of their scientific research from the point of view of cybersecurity. The conference focuses on Cybersecurity Research, Teaching, and Educational Innovation and Technology Transfer in Cybersecurity.

Two RAYUELA contributions were accepted and presented in JNIC2021. The first contribution, entitled "The H2020 project RAYUELA: A fun way to fight cybercrime", aims to unveil the most important goals and features of the project by answering some important questions, such as: why RAYUELA, who we are, what we want to achieve, how, what the main challenges and novelty of the project are, and what will be next (although the project is still in its earlier stages).

The second contribution, entitled "Análisis de Seguridad y Privacidad en dispositivos de la Internet de las Cosas usados por jovenes", analyses the security and privacy issues of connected devices used by minors between 12 and 17 years old. Its development is part of the WP2 of the project. The paper highlights the existing vulnerabilities associated with the use of the connected devices most used by minors. In addition, it shows that device manufacturers tend to give priority to the functionalities and services they have to offer, leaving security aspects in the background.

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RAYUELA WORKSHOP ON "SERIOUS GAMES: APPLICATIONS AND LESSONS LEARNED"
22nd of June 2021

This first RAYUELA workshop of a special series of workshops focused on illustrating the opportunities offered by serious games by going through several applications of serious games to different domains. The workshop also aims to discuss the most common challenges when developing and validating serious games, as well as to highlight lessons learned from previous experiences.

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PARTICIPATION OF RAYUELA IN ICAI TECH SUMMER CAMP
1st, 8th and 15th of July 2021

During July, RAYUELA celebrated three workshops, with the support of A21, within the courses on Cybersecurity and 3D Videogame Design of the ICAI tech summer camp. These workshops allowed discussing the concept and goals of the project and getting fresh and sound ideas from the teenagers participating in the summer camp, who are actually the main characters of our videogame. It was a pleasure interacting with them and we took good note of their feedback and suggestions.
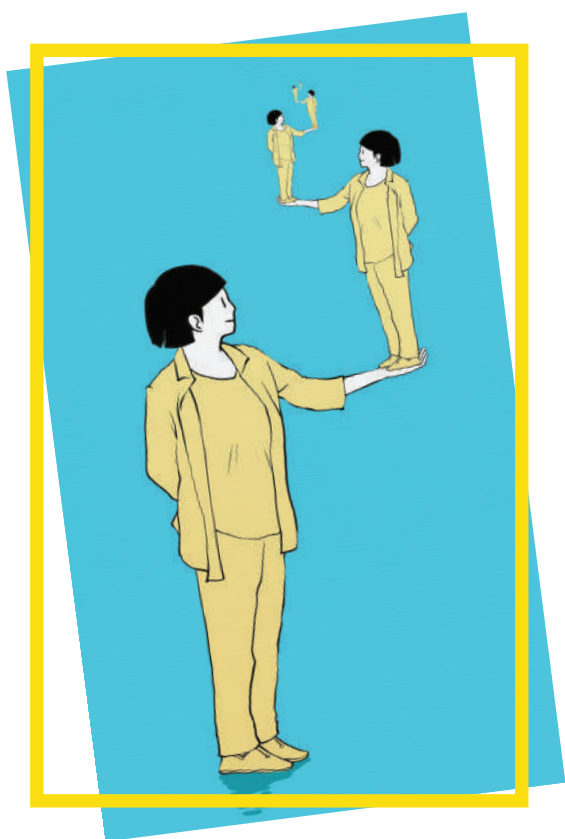
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PARTICIPATION OF RAYUELA IN PLATON – POLAR STAR SUMMER SCHOOL 2021
7th of July 2021

The RAYUELA project delivered an invited workshop in the Platon – Polar Star Summer School 2021. The event focused on the spread of scientific misinformation with an emphasis on conspiracy theories. The Summer School was organised as part of the European School Innovation Academy (ESIA) and the European project Polar Star project.

PARTICIPATION OF RAYUELA IN OPEN SCHOOLING SUMMER SCHOOL 2021
8th of July 2021

RAYUELA organized and delivered a session in the Open Schooling Summer School 2021. The workshop focused on cybersafety in schools and classrooms. Understanding cybersafety is a rather key element in the quest for digitally mature schools in the era of AI and increased digitalization. A brief introduction to the project was followed by a Kahoot quiz where the participants could go deep in key cybersafety concepts related to the project. These two workshops represent a cornerstone to strengthen the project relationship with such a key stakeholder as the community of educators and thus to build a RAYUELA community all over Europe.

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RAYUELA WORKSHOP ON "TECHNOLOGY AND CYBERCRIME: DIFFERENT PERSPECTIVES"
9th of July 2021

This second RAYUELA workshop focused on the role that technology (e.g., online social networks, messaging applications, etc.) plays in the cybercrimes considered in the project (online grooming, cyberbullying, and human trafficking). The workshop will cover how technological platforms are used to perpetrate such cybercrimes, as well as how technology can be used to detect and combat them, including the perspectives of key stakeholders such as Law Enforcement Agencies, Non-Governmental Organizations, technology providers, and academia. A short introductory statement will be followed by short presentations from experts in the field and a discussion and Q&A session.

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RAYUELA WORKSHOP ON "HUMAN BEHAVIOUR MODELLING"
15th of July 2021

This third RAYUELA Workshop brought together professionals from different areas of knowledge to discuss the similarities and differences on how they model human behaviour and explore cross-domain learning and possible synergies. A short introductory statement about the RAYUELA project will be followed by short presentations from the experts and a discussion and Q&A session.

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COLLABORATION BETWEEN RAYUELA AND THE ACADEMY OF CONTEMPORARY MUSIC

RAYUELA project is collaborating with the Academy of Contemporary Music, ACM, based in Guildford, UK, as part of the raising awareness campaign activity led by ALL DIGITAL. Within the CLOCK bootcamps running in August 2021, students are learning and reflecting on cybercrime topics through non-formal and informal assessment session with industry trainers. In these sessions, students are invited to respond to a professional brief by writing and creating a song, record it and perform meeting in a peer-to-peer environment. For RAYUELA, the brief is focused on providing key messages on cybercrime risks and threats to young audiences. ACM staff has interpreted RAYUELA project as a chance to educate young students, update trainers and tutors and create a safe environment where to discuss these topics with the support of counsellors.

Furthermore, ACM is exploring other outreach activities within his campuses across the United Kingdom to promote project results and contribute further to raise awareness among young people.
We are also trilled to anticipate that Dr. Denise Stanley-Chard, Head of Research and Development and Knowledge Exchange, will join the RAYUELA International Advisory Board, bringing her personal and professional experience within education in the Creative and Cultural Industries.

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DR. EDMOND AWAD APPOINTED AS SCIENTIFIC ADVISOR

Dr. Edmond Awad has joined the International Advisory Board of the project as scientific advisor. Edmond Awad is a Lecturer (Assistant Professor) in the Department of Economics and the Institute for Data Science and Artificial Intelligence at the University of Exeter. He is also an Associate Research Scientist at the Max Planck Institute for Human Development, and is a Founding Editorial Board member of the AI and Ethics Journal. Before joining the University of Exeter, Edmond was a Postdoctoral Associate at MIT Media Lab (2017-2019). In 2016, Edmond led the design and development of Moral Machine, a website that gathers human decisions on moral dilemmas faced by driverless cars. The website has been visited by over 4 million users, who contributed their judgements on 70 million dilemmas. Another website that Edmond co-created, called MyGoodness, collected judgements over 2 million charity dilemmas. Edmond's work appeared in major academic journals, including Nature, PNAS, and Nature Human Behaviour, and it has been covered in major media outlets including The Associated Press, The New York Times, The Washington Post, Der Spiegel, Le Monde and El Pais. We are thrilled to count with the advice of such an expert in the field of serious games with social impact.

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FIRST INSIGHTS FROM RESEARCH

We are excited to bring you the first insights on relevant data that we are working with, to fight cybercrime and to educate our European youth. RAYUELA consortium in spring 2021 published the first crucial deliverable that will help us with the serious game design and help all relevant stakeholders to understand the profiles and characteristic of offenders and victim to be able to fight against cybercrime.

Our aim was to analyse the information presented in the sentences of different countries. For that purpose, a systematic search of sentences was made in the different databases. The analysis of the sentences aimed to obtain information about the characteristics of offenders and victims, as well as to get an idea about the modus operandi used in each cybercrime.

Both qualitative and quantitative analysis were conducted extracting several interesting conclusions. When analyzing online grooming sentences there was no patron regarding offender's profile, having a wide and changing modus operandi adapting to different victims. Differences were found when relating the gender of the victim and the modus operandi, in a strong trend that was found locally and globally. Differences were also found between the persuasive strategies and the possibilities of having a physical encounter. These results have important implications for prevention.

Regarding cyberbullying, it does not seem to exist specific offender and victim profiles concerning cyberbullying, with no significant differences between European countries and zones. The most frequent forms of cyber-bullying are described, resulting that in more than half of the cases sexual material was abused or shared. Although everybody can be subject to cyberbullying, disregarding race, ethnicity, or previous bad experiences, some elements regarding sexism, racism, and homophobia must be considered in terms of prevention..

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FIRST INSIGHTS FROM RESEARCH

Regarding human trafficking, the deliverable highlights the existence of mainly two forms of human trafficking in Europe. The first form is what is traditionally understood as human trafficking, in the sense that potential victims are forced into prostitution by offenders. This form of human trafficking was the predominant form in the Eastern part of Europe. However, a far more subtle form of human trafficking has been identified in the Western part of Europe: the "loverboy" phenomenon.

This is a particularly concerning phenomenon, as the coercion applied in these cases is based on an emotional relationship between the offender and the victim, and thus merits special attention in the RAYUELA project.
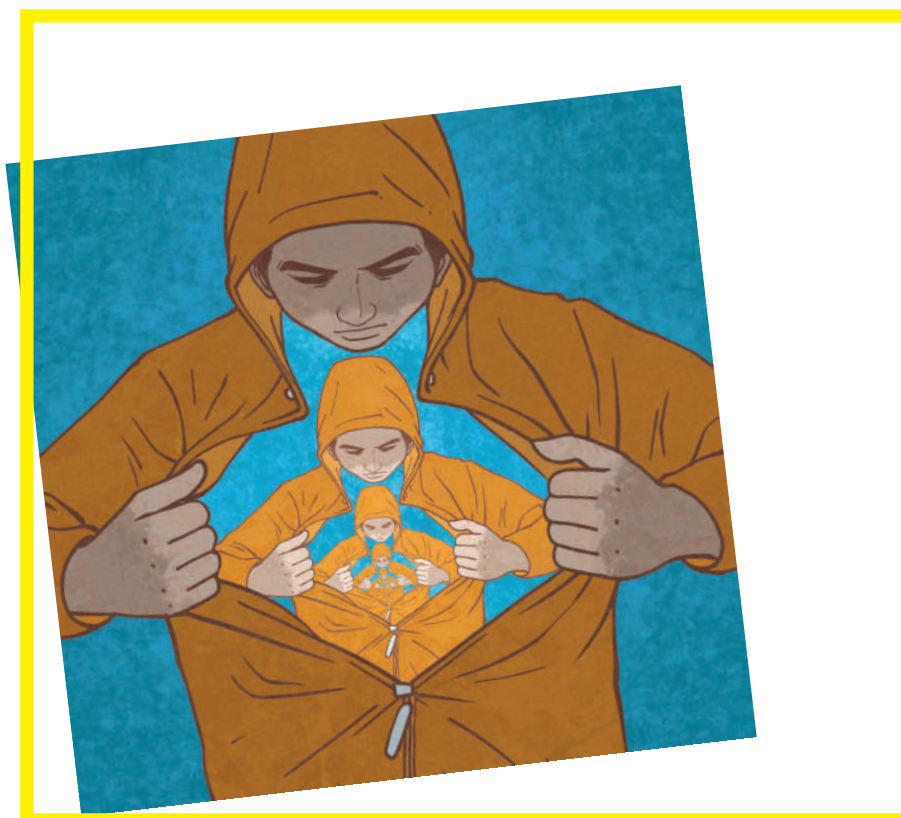

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RAYUELA consortium meeting in October 2021

Next Joint Meeting with our sister project **CC-DRIVER** on ethics in
October 2021

RAYUELA workshop to be delivered in **ALL DIGITAL summit**
2021 Oct 13th - 15th 2021

https://summit.all-digital.org/

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PROJECT DATA

PROGRAMME: H2020-SU-FCT01-2019

Sub-topic 2: Understanding the drivers of cybercriminality, and new methods to prevent, investigate and mitigate cybercriminal behaviour

TYPE OF ACTION: Research and Innovation Action (RIA)

DURATION: 36 months (1 oct 2020 – 30 sept 2023)

PROJECT BUDGET: € 4 978 040 (EU contribution: € 4 974 290)

CONSORTIUM: 17 partners from 9 European countries

COORDINATOR: COMILLAS

project coordinator: Gregorio López
e-mail: gllopez@comillas.edu
web: https://www.rayuela-h2020.eu
facebook: https://www.facebook.com/RayuelaH2020
linkedn: https://www.linkedin.com/company/rayuela-h2020
twitter: https://twitter.com/RAYUELA_H2020

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