

Dr. Nikolaos Bastas

Multimedia Knowledge and Social Media Analytics Laboratory Information Technologies Institute Centre for Research and Technology Hellas (CERTH)

https://www.prophets-h2020.eu/

Thessaloniki 20/6/2019





What is PROPHETS about?

PROPHETS seeks to analyse, assess and fight the threats of cybercrime activities



Online
behavioural
radicalisation is
the driving force in
the genesis of
online criminal
attidudes



PROPHETS seeks to investigate and understand the behavioural processes at the cause of individuals engaged in cybercrime actions.







Start: 01. May 2018

End: 30. April 2021



Budget: 2.998.331,25€



SEC-07-FCT-2016-2017 - Human Factor for the Prevention, Investigation, and Mitigation of criminal and terrorist acts

GA Number: 786894



Project Officer: Laure Guile





Consortium

BayHföD Hochschule für den Öffentlichen Dienst in Bayern

CENTRIC Sheffield Hallam University

PSNI Police Service of Northern Ireland

CPC Policijska Akademija Agenfor International

CERTH Ethniko Kentro Erevnas Kai Technologikis Anaptyxis

El European Institute Foundation

FUB Freie Universität Berlin

PPMUC Bayerisches Staatsministerium des Innern

TVD Ministero Della GiustiziaPPA Politsei- ja PiirivalveametUGR Universidad De Granada

EUR Erasmus Universiteit Rotterdam

KEMEA Kentro Meleton Asfaleias

BEP Politiezone Brecht-Malleschilde-Zoersel







Work Packages (WPs)

Work Package	Title	Leader
WP1	Project Management	BayHfoD
WP2	Legal, Political and Ethical Aspects of Online Behavioural Radicalisation	TVD
WP3	Evidence Based Analysis through Key Behavioural Use Cases	AGF
WP4	User Requirements for Safeguarding Against Online Behavioural Radicalisation	CENTRIC
WP5	Online PROPHETS Platform Development	CERTH
WP6	Validation and Implementation	EI
WP7	Dissemination, Harmonisation and Exploitation	FUB
WP8	Ethics requirements	BayHfoD







Short description of WPs [A]

Work Package	Description
WP1	Management, co-ordination and quality assurance activities of the project
WP2	Ensure the ethical, legal and community issues (including diversity) are taken into account at every stage of the PROPHETS project. Harmonise and consolidate a comprehensive and dynamic legal, ethical and policy framework for PROPHETS research and development.
WP3	Research and design guiding models to legitimately and impartially investigate the multitude of key cyber radicalisation behaviours , underlying psychological traits.
WP4	Gain an understanding of the current and future online and offline behavioural radicalisation threat landscape and user equirements for the PROPHETS toolkit.







Short description of WPs [B]

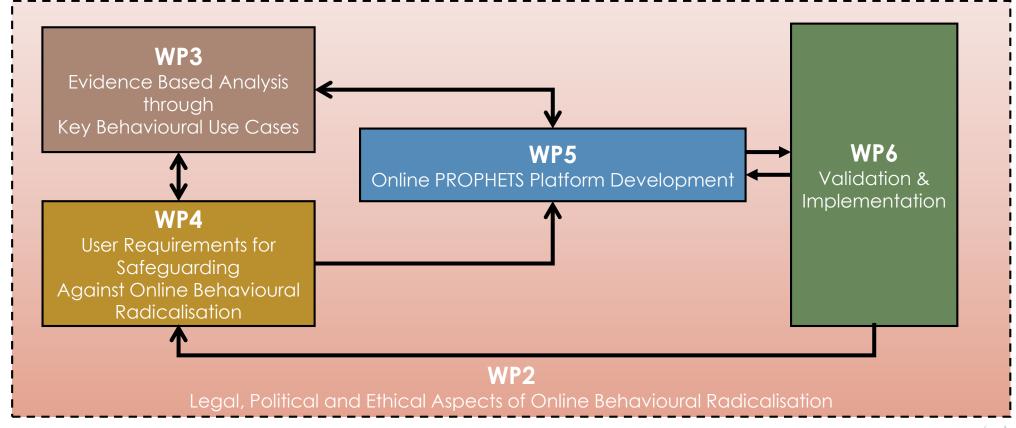
Work Package	Description
WP5	Develop a platform to assist and educate LEAs in the prevention, investigation and mitigation of online behavioural radicalisation and emerging cybercrime and cyberterrorism.
WP6	Design, develop, carry out and then report on the outcomes of each of the validation exercises.
WP7	Create strong awareness regarding the PROPHETS project at the; local, regional, National, EU and international levels
WP8	Ensure compliance with the 'ethics requirements'







Relation to other WPs





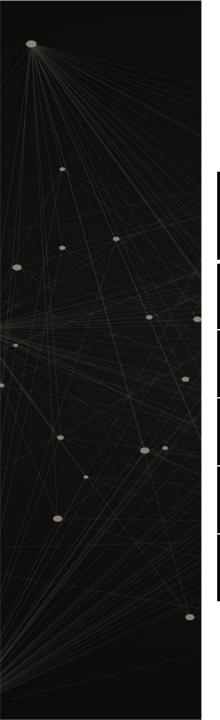




WP5 Objectives

- Assist/educate LEAs in prevention, investigation, mitigation of online behavioural radicalisation & emerging cybercrime/cyberterrorism
- WP5 aims to establish technologies to:
 - i. reduce the manual workload through automation
 - increase situational awareness
 - iii. streamline management procedures and workflow through prioritisation
 - iv. enhance investigations through developing a live-time expert analysis portal
- WP5 contains the development of the PROPHETS platform:
 - · Policy Making Toolkit
 - Weak Indicator Extraction System
 - Enhanced Monitoring and Situational Awareness Tool
 - Multilingual Real-Time Expert Notification







WP5 Tasks

Task Number	Description	Leader
T5.1	Policy Making Toolkit	CENTRIC
T5.2	Weak Indicator Extraction	CERTH
T5.3	Enhanced Monitoring and Situational Awareness Tool	CERTH
T5.4	Real-Time Expert Notification Portal	CENTRIC
T5.5	System Requirements, Development and Integration	CERTH







Task 5.1: Policy Making Toolkit

Goals:

- 1. Recommend policy approaches to existing/emerging threats
- 2. Translate technically complex and internationally spread areas of interest into a transparent and 'debriefed' information
- Review legislation (including human rights, criminal procedural law, data protection, victims' rights and other) relevant to the work of LEAs in prevention, investigation and mitigation of cybercrime







T5.1: Outcomes

- Simplified and layman-friendly series of EU relevant documents relating to existing/emerging cyber threats
- Set of rules or basic standards to assist in the construction of future policies and legislation
- Differences in legal frameworks between EU member states that may limit harmonisation
- 'Legal compatibility profile' of partners' Member States







Task 5.2: Weak Indicator Extraction

- Goal: Develop Weak Indicator Extraction suite of tools for:
 - Online Material Monitoring
 - automated discovery, crawling, extraction, and analysis of relevant material
 - posted online on Web forums, Dark Web, and social media

Classification

categorisation of the collected material into a taxonomy

Clustering

- grouping together online material about similar topics
- Threat Assessment and Early Warnings
 - combination of weak indicators
 - increase predictive power
 - support decisions with higher confidence







Task 5.3: Weak Indicator Extraction

- Goal: Develop Situational Awareness suite of tools for:
 - Social Network Analysis
 - detect user communities (e.g. user accounts on forums/social media platforms) engaging in relevant interactions
 - identify the most important and influencing community actors with a key role
 in the connectivity of the social network → dissemination of information
 - Visual Analytics for Enhanced Situational Awareness
 - Develop visualization graphs, charts and analytics
 - timeline charts
 - clustering treemaps
 - location maps
 - social network analysis graphs
 - etc.





PROPHETS Task 5.4: Real Time Expert Notification Portal

- Goal: Develop a portal for real time outsourcing of intelligence to a vetted and validated community of subject matter experts
- Similar in design to EUROPOL's crowd-sourcing of Child Sexual Exploitation intelligence
 - but for a wider variety of topics
 - and for a specialist community [more like Europol expert panels]







Task 5.5: System Requirements, Development and Integration



- Goal: Build PROPHETS platform as a suite of the T5.1-T5.4 tools
 - Develop an overall technical roadmap
 - Specify technical requirements based on end-user requirements (WP4)
 - Define platform architecture:
 - organisation of the system
 - building blocks
 - layers
 - components
 - interfaces and interactions
 - etc.
 - Develop PROPHETS platform
 - T5.1: Policy Making Toolkit
 - T5.2: Weak Indicator Extraction System
 - T5.3: Situational Awareness Tool
 - T5.4: Multilingual Real-Time Expert Portal





Main Contacts

Nikolaos Bastas

Postdoctoral Research Fellow

nimpasta@iti.gr

Theodora Tsikrika

Postdoctoral Research Fellow

theodora.tsikrika@iti.gr

Stefanos Vrochidis

Senior Researcher

stefanos@iti.gr

Ioannis (Yiannis) Kompatsiaris

Senior Researcher A

ikom@iti.gr

