UGent Impact Lab for Preventing and Countering Violent Extremism (P/CVE)

Prof. Dr. Wim Hardyns

Studiedag – Radicalisering en technologie: Veiligheidsperspectieven op fenomenen als extremisme en radicalisering, en de specifieke rol van technologie

24 oktober 2024

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IRCP Institute for International Research on Criminal Policy
Ghent University

Crime, Criminology & Criminal Policy
Research Consortium Ghent University

i4S Smart Solutions for Secure Societies

- Professor in de Criminologische Wetenschappen (UGent) en Veiligheidswetenschappen (UAntwerpen)
- ERC grant holder BIGDATPOL
- https://www.linkedin.com/in/wim-hardyns-7250a129/

BIGDATPOL
Towards an evidence-based model for big data policing

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Funded by the European Union

erc
European Research Council
Established by the European Commission

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Wie zijn we?

➢Impact Lab → voorkomen en bestrijden van gewelddadig extremisme

➢Samenwerking tussen:

IRCP Institute for International Research on Criminal Policy Ghent University

Crime, Criminology & Criminal Policy Research Consortium Ghent University

i4S Smart Solutions for Secure Societies

➢Interdisciplinair team: criminologen, juristen, psychologen, sociale wetenschappers, STEM, …

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➢Partners: academici, openbare diensten, particuliere organisaties, maartschappelijk middenveld en beleidsmakers

→ lokaal, regionaal, (inter)nationaal

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Wat zijn onze doelen?

- Bevorderen van inter- en transdisciplinaire samenwe
- Samenbrengen van middelen en onderzoeksinfrastructuren
- Praktische implementatie van onderzoek en tools/instrumenten
- Creëren van impact
- Ondersteunen van onderzoekers/projecten adhv internationaal thematisch netwerk

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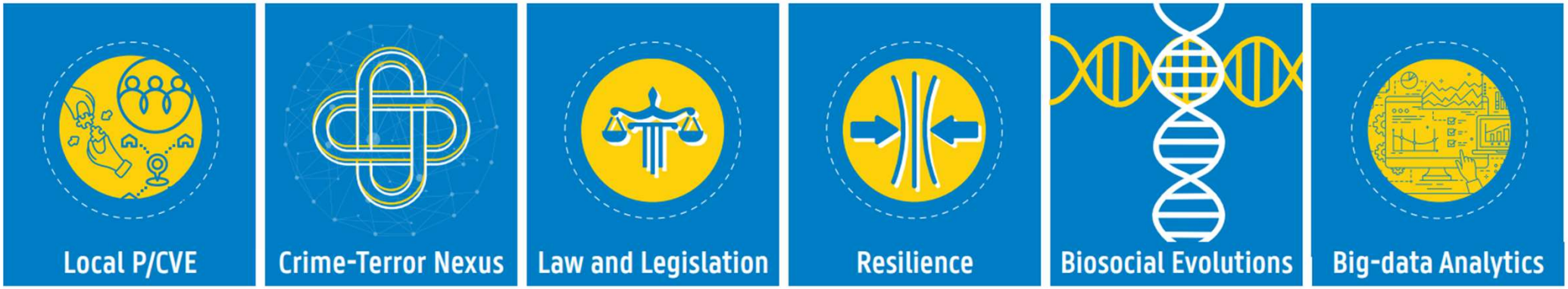
Onze themagebieden



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Wat doen we?

1. Wetenschappelijk onderzoek

2. Evaluatie van beleids-actieplannen

3. Ontwikkeling van tools en instrumenten

→ Kennis verspreiden naar praktijk + internationale kanalen

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1. Wetenschappelijk onderzoek

01 October 2018 → 30 September 2023

One for all, all for one? A research into the steps toward violent extremism and terrorism: what it takes to make costly sacrifices.

Fellow: Lana De Pelecijn

Funding: Research Foundation - Flanders (FWO)

30 December 2021 → 29 May 2022

Desistance from Violent Extremism.

Fellow: Sigrid Raets

Funding: Regional and community funding: Special Research Fund

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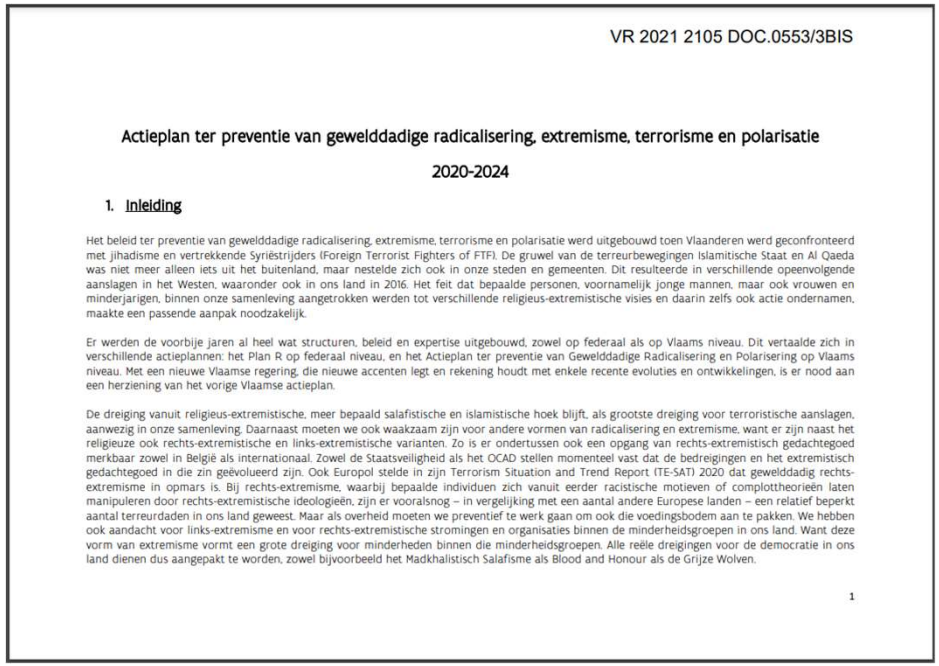
2. Evaluatie van beleids-actieplannen



VR 2021 2105 DOC.0553/3BIS

Actieplan ter preventie van gewelddadige radicalisering, extremisme, terrorisme en polarisatie

2020-2024

1. Inleiding

Het beleid ter preventie van gewelddadige radicalisering, extremisme, terrorisme en polarisatie werd uitgebouwd toen Vlaanderen werd geconfronteerd met jihadisme en vertrekkende Syriëstrijders (Foreign Terrorist Fighters of FTF). De gruwel van de terreurbewegingen Islamitische Staat en Al Qaeda was niet meer alleen iets uit het buitenland, maar nestelde zich ook in onze steden en gemeenten. Dit resulteerde in verschillende opeenvolgende aanslagen in het Westen, waaronder ook in ons land in 2016. Het feit dat bepaalde personen, voornamelijk jonge mannen, maar ook vrouwen en minderjarigen, binnen onze samenleving aangetrokken werden tot verschillende religieus-extremistische visies en daarin zelfs ook actie ondernamen, maakte een passende aanpak noodzakelijk.

Er werden de voorbije jaren al heel wat structuren, beleid en expertise uitgebouwd, zowel op federaal als op Vlaams niveau. Dit vertaalde zich in verschillende actieplannen: het Plan R op federaal niveau, en het Actieplan ter preventie van Gewelddadige Radicalisering en Polarisering op Vlaams niveau. Met een nieuwe Vlaamse regering, die nieuwe accenten legt en rekening houdt met enkele recente evoluties en ontwikkelingen, is er nood aan een herziening van het vorige Vlaamse actieplan.

De dreiging vanuit religieus-extremistische, meer bepaald salafistische en islamistische hoek blijft, als grootste dreiging voor terroristische aanslagen, aanwezig in onze samenleving. Daarnaast moeten we ook waakzaam zijn voor andere vormen van radicalisering en extremisme, want er zijn naast het religieuze ook rechts-extremistische en links-extremistische varianten. Zo is er ondertussen ook een opgang van rechts-extremistisch gedachtegoed merkbaar zowel in België als internationaal. Zowel de Staatsveiligheid als het OCAD stellen momenteel vast dat de bedreigingen en het extremistisch gedachtegoed in die zin geëvolueerd zijn. Ook Europol stelde in zijn Terrorism Situation and Trend Report (TE-SAT) 2020 dat gewelddadig rechts-extremisme in opmars is. Bij rechts-extremisme, waarbij bepaalde individuen zich vanuit eerder racistische motieven of complottheorieën laten manipuleren door rechts-extremistische ideologieën, zijn er vooralsnog – in vergelijking met een aantal andere Europese landen – een relatief beperkt aantal terreurdaden in ons land geweest. Maar als overheid moeten we preventief te werk gaan om ook die voedingsbodem aan te pakken. We hebben ook aandacht voor links-extremisme en voor rechts-extremistische stromingen en organisaties binnen de minderheidsgroepen in ons land. Want deze vorm van extremisme vormt een grote dreiging voor minderheden binnen die minderheidsgroepen. Alle reële dreigingen voor de democratie in ons land dienen dus aangepakt te worden, zowel bijvoorbeeld het Madkhalistisch Salafisme als Blood and Honour als de Grijze Wolven.

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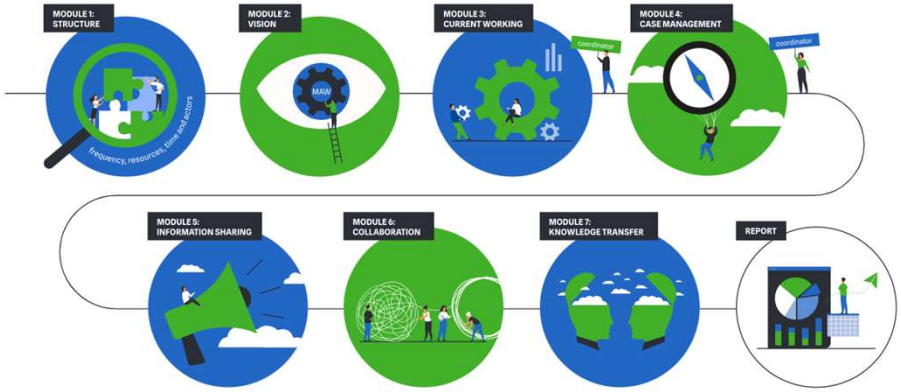
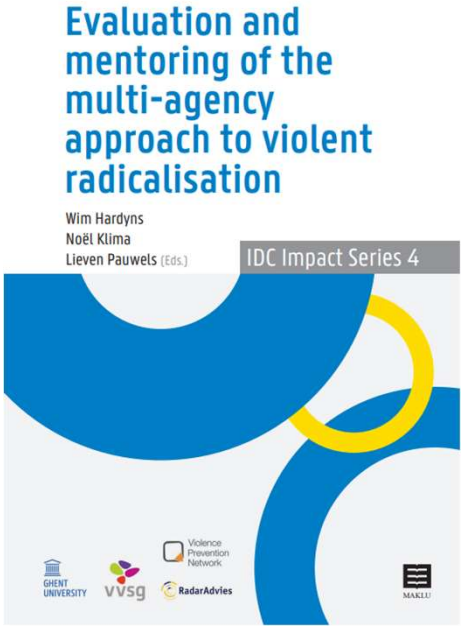
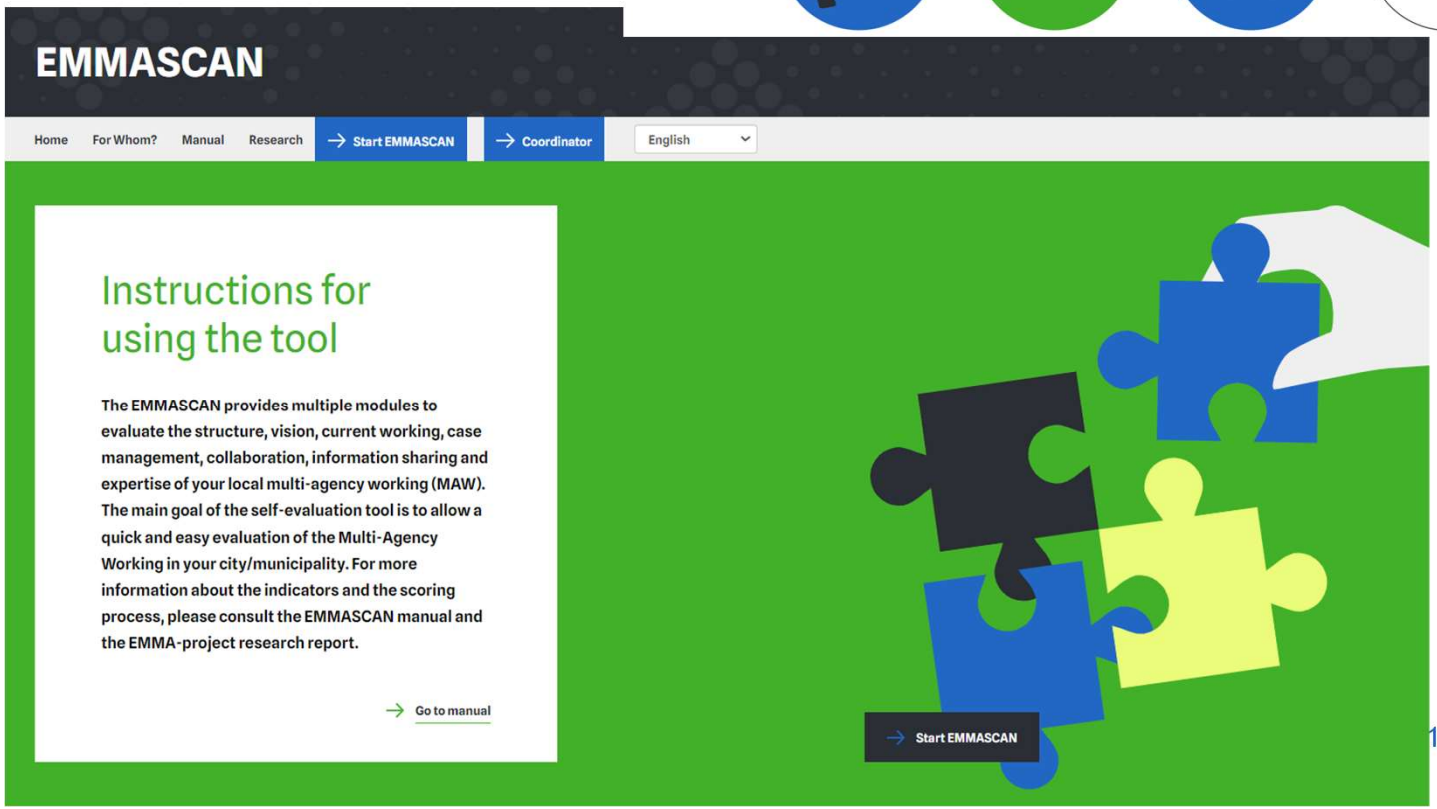
3. Ontwikkeling van tools en instrumenten







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3. Ontwikkeling van tools en instrumenten

01 April 2018 → 31 December 2018

Development and animation of a training program for social assistants of the OCMWs for the prevention of violent radicalisms - pilot phase NL

Funding: Regional and community funding: various

OCMW

08 October 2018 → 02 October 2020

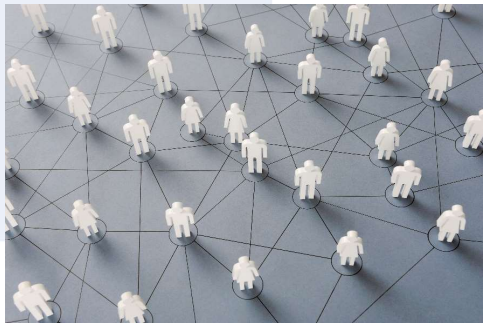
Developing and offering a programme for park guards and park animators with regard to the prevention of violent radicalisation

Funding: Regional and community funding: various

13 March 2020 → 13 March 2022

Developing and giving a training program 'Professional attitudes towards radicalisms and polarization' for social workers

Funding: Regional and community funding: various



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3. Ontwikkeling van tools en instrumenten

06 December 2016 → 31 March 2019

BOUNCE- Reselience Training, Network and Evaluation - STRESAVIORA II

Funding: Federal funding: various

BOUNCE - VEERKRACHTTOOLS

BOUNCE versterkt de veerkracht en het kritisch denken van (kwetsbare) jongeren en maakt hun sociale omgeving bewust. BOUNCE heeft als doelstelling om de veerkracht van jongeren te verhogen, hun kritisch denken te stimuleren en de bewustwording bij ouders en eerstelijnswerkers te vergroten.

BOUNCE up
train the trainer

BOUNCE young
training resilience

BOUNCE along
raising awareness

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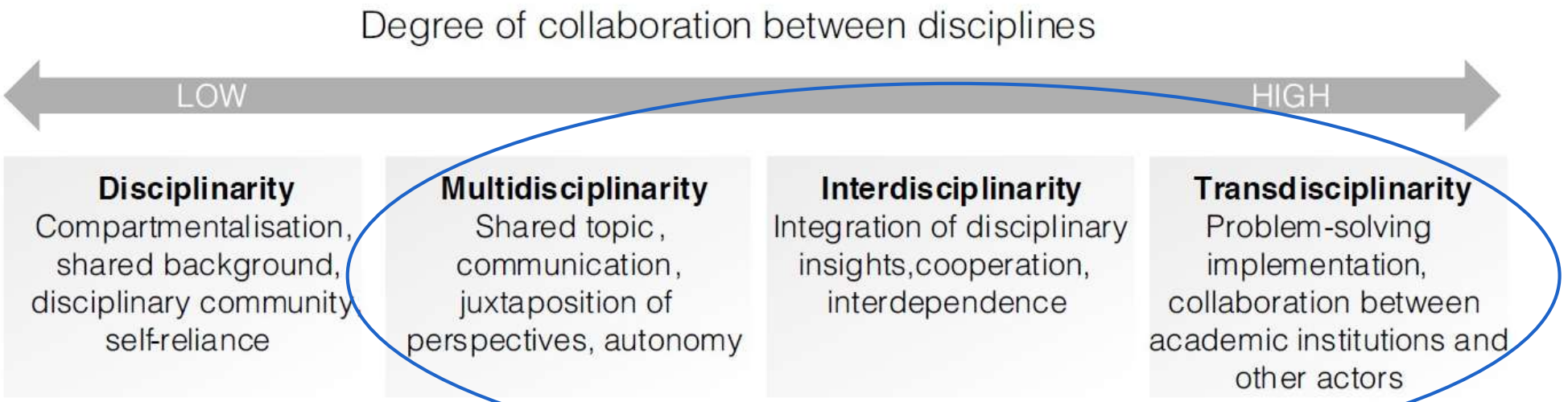
2. INTERDISCIPLINAIR ONDERZOEK



Interdisciplinair onderzoek

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'Interdisciplinary research is a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts, and/or theories from two or more disciplines or bodies of specialized knowledge to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or field of research practice' (Giddens, 1991)

2. INTERDISCIPLINAIR ONDERZOEK

Criminologie	Sociologie	Politicologie	Taal-en letterkunde	Computer wetenschappen
Psychologie	Communicatie wetenschappen	Rechten	Geschiedenis	Godsdienst wetenschappen
Geografie	Pedagogische wetenschappen	Bestuurskunde en publiek management	Economie	Filosofie

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2. INTERDISCIPLINAIR ONDERZOEK

Politicologie

Prof. dr. em.
Rik Coolsaet

'Radicalisation' and 'Countering radicalisation': The emergence and expansion of a contentious concept
Rik Coolsaet
Hoofdstuk in een boek in **The Routledge Handbook on Radicalisation and Countering Radicalisation**
2024

(De)radicalisering tussen praktijk en ambiguïteit
Rik Coolsaet
A2 Artikel in een tijdschrift in **CAHIERS POLITIESTUDIES**
2017

When do individuals radicalize?
Rik Coolsaet
Hoofdstuk in een boek in **Contemporary terrorism studies**
2022

Returnees : who are they, why are they (not) coming back and how should we deal with them ? Assessing policies on returning foreign terrorist fighters in Belgium, Germany and the Netherlands
Rik Coolsaet, Thomas Renard
Boek
2018

Rethinking radicalization : addressing the lack of a contextual perspective in the dominant narratives on radicalization
Rik Coolsaet, Stiene Ravn, Tom Sauer
Hoofdstuk in een boek in **Radicalisation : a marginal phenomenon or a mirror to society?**
2019

'All radicalisation is local': the genesis and drawbacks of an elusive concept
Rik Coolsaet
Boek
2016

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Facing the fourth foreign fighters wave: what drives Europeans to Syria, and to IS? Insights from the Belgian case
Rik Coolsaet
Boek
2016

Deradicalisering en de IS generatie
Rik Coolsaet
Nieuwsartikel
2016

2. INTERDISCIPLINAIR ONDERZOEK

Taal-en letterkunde

Prof. dr. Catherine Bouko

Online hate to offline harm : the impact of online hateful and extremist activity in our communities
Catherine Bouko
C3 Conferentie
2021

Discourse Patterns used by extremist Salafists in Facebook posts to potentially trigger cognitive biases
Catherine Bouko, Pieter Van Ostaeyen, Pierre Voué
C3 Conferentie
2021

Raising awareness about one's own cognitive biases to counter radicalization : presentation of the PRECOBIAS project
Catherine Bouko, Diana Rieger, Brigitte Naderer
C3 Conferentie
2021

How jihadi Salafists sometimes breach, but mostly circumvent, Facebook's community standards in crisis, identity and solution frames
Catherine Bouko, Pieter Van Ostaeyen, Pierre Voué
A1 Artikel in een tijdschrift in **STUDIES IN CONFLICT & TERRORISM**
2024

Discourse patterns used by extremist Salafists on Facebook : identifying potential triggers to cognitive biases in radicalized content
Catherine Bouko, Brigitte Naderer, Diana Rieger, Pieter Van Ostaeyen, Pierre Voué
A1 Artikel in een tijdschrift in **CRITICAL DISCOURSE STUDIES**
2022

Facebook's policies against extremism : ten years of struggle for more transparency
Catherine Bouko, Pieter Van Ostaeyen, Pierre Voué
A2 Artikel in een tijdschrift in **FIRST MONDAY (ONLINE)**
2021

Making students more resilient to extremist content online : critical thinking skills and self-awareness of cognitive biases
Catherine Bouko, Alena Krempaska, Anna Kucinska
Boek
2021

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2. INTERDISCIPLINAIR ONDERZOEK

Economie

Prof. dr.
Ilse Ruyssen

Leaving terrorism behind? The role of terrorist attacks in shaping migration intentions around the world
Killian Foubert, Ilse Ruyssen
A1 Journal Article in **JOURNAL OF ETHNIC AND MIGRATION STUDIES**
2024

Prof. dr.
Stéphanie De Coensel

Rechten

01 October 2016 → 30 September 2020
Legitimacy of a possible criminalisation of radicalism and/or extremism
Fellow: Stéphanie De Coensel
Funding: Regional and community funding: Special Research Fund

Psychologie

Prof. dr.
Alain Van Hiel

A radical vision of radicalism : political cynicism, not incrementally stronger partisan positions, explains political radicalization
Alain Van Hiel, Jasper Van Assche, Tessa Haesevoets, David De Cremer, Gordon Hodson
A1 Journal Article in **POLITICAL PSYCHOLOGY**
2022

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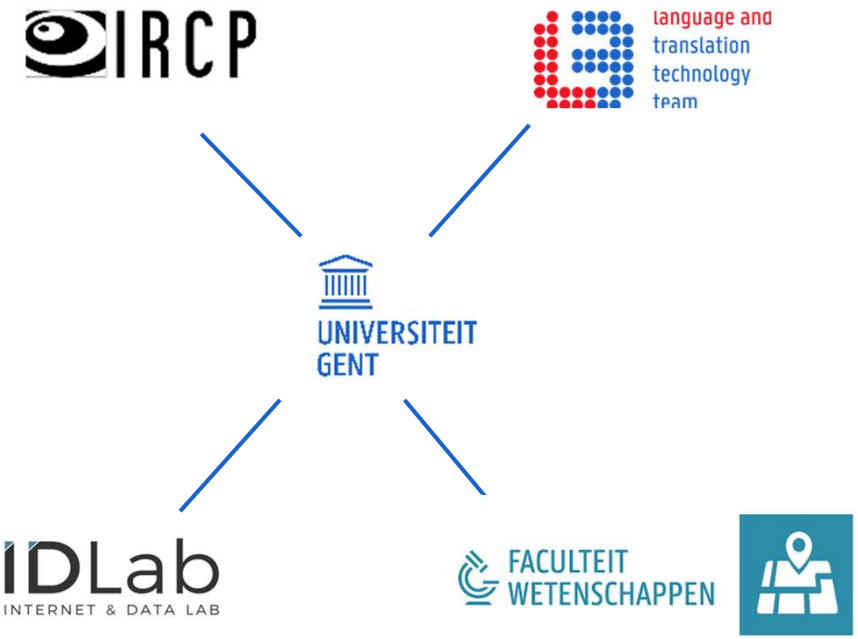
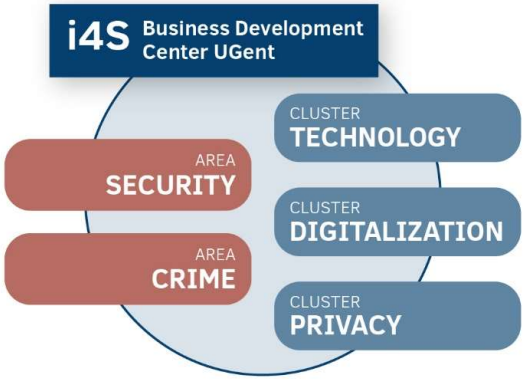
Multimodale Detectie van Radicalisering





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i4S Smart Solutions for Secure Societies

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3. TECHNOLOGIE EN (GEWELDDADIG) EXTREMISME

ALS FACILITATOR VAN EXTREMISME

TER PREVENTIE/BESTRIJDING VAN EXTREMISME

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ALS FACILITATOR VAN EXTREMISME

TER PREVENTIE/BESTRIJDING VAN EXTREMISME

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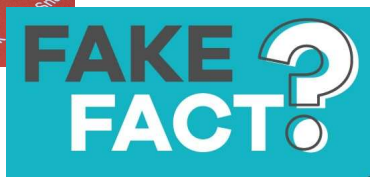
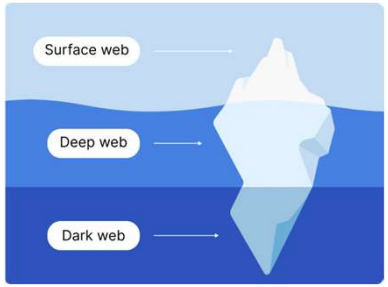
3. TECHNOLOGIE ALS FACILITATOR VAN EXTREMISME

1. Gevoeligheid voor en verkenning van extremistische ideologieën
   - Sociale media
   - Fake news
   - Chatbot
   - …



2. Lid van extremistische groep
   - Communicatie
   - Propaganda
   - Deepfakes
   - …

3. Gewelddadig extremistische actie voorbereiden/uitvoeren
   - Dark web
   - 3D-printer
   - Cyberaanval
   - …



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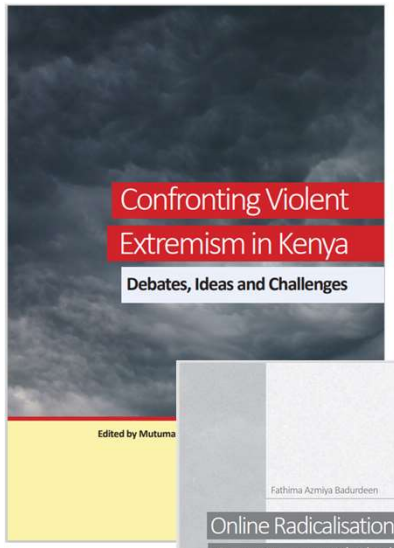
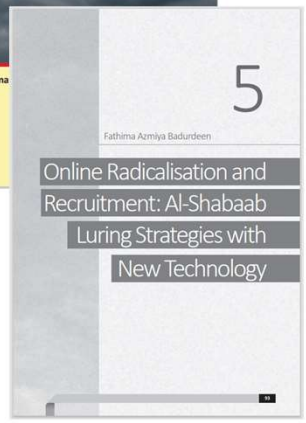


An Assessment of the Harms Associated With Ideologically Motivated Cyberattacks

Thomas J. Holt, Steven Chermak, [...], and Emily Greene-Colozzi (+2) View all authors and affiliations

OnlineFirst | https://doi.org/10.1177/00111287241271221

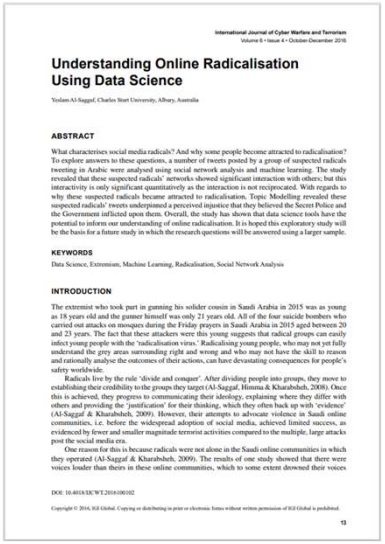


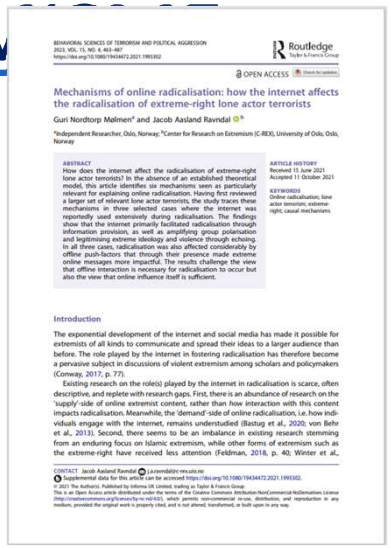
Is AI-Generated Extremism Credible? Experimental Evidence from an Expert Survey

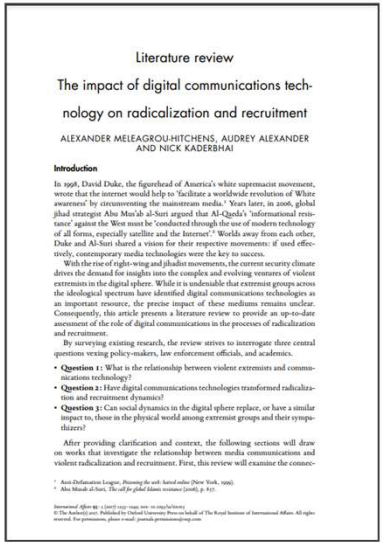
Stephane J. Baele, Elahe Naserian & Gabriel Katz

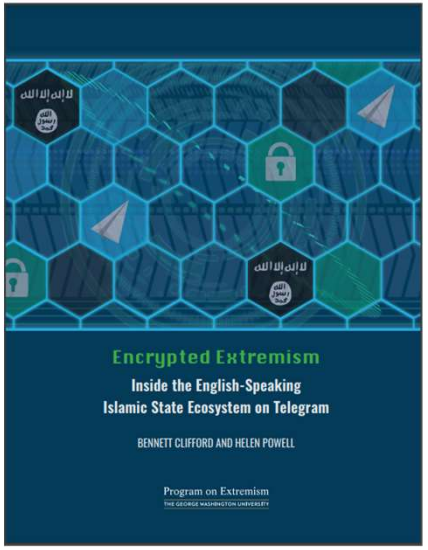
Published online: 02 Aug 2024

Cite this article https://doi.org/10.1080/09546553.2024.2380089 Check for updates









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3. TECHNOLOGIE EN (GEWELDDADIG) EXTREMISME

ALS
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VAN
EXTREMISME

TER
PREVENTIE/BESTRIJDIN
G
VAN EXTREMISME

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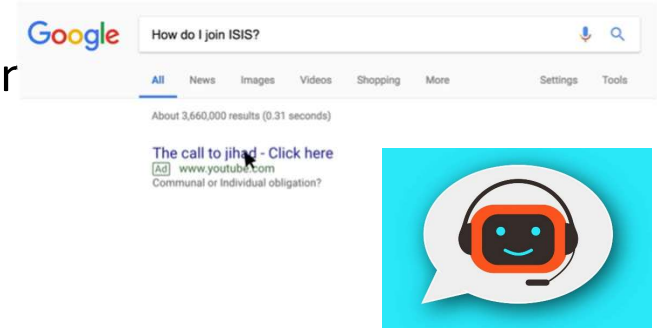
3. TECHNOLOGIE TER PREVENTIE EN BESTRIJDING VAN EXTREMISME

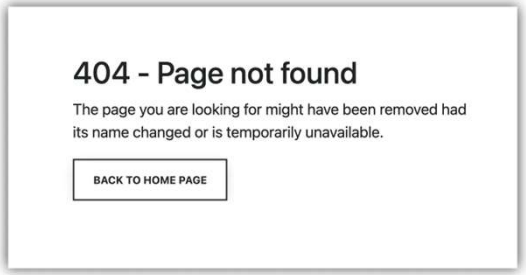
1. Gevoeligheid voor en verkenning van extremistische ideologieën

- Identificeren van vatbare personen: chatbots, targeted ads, redirect methode
- Counter narrative
- …



2. Lid van extremistische groep

- Netwerkanalyses
- Content removal: extremistische accounts, haatspraak , beeldmateriaal
- …



3. Gewelddadig extremistische actie voorbereiden/uitvoeren

- Financiële transacties analyseren
- Cybersecurity
- …

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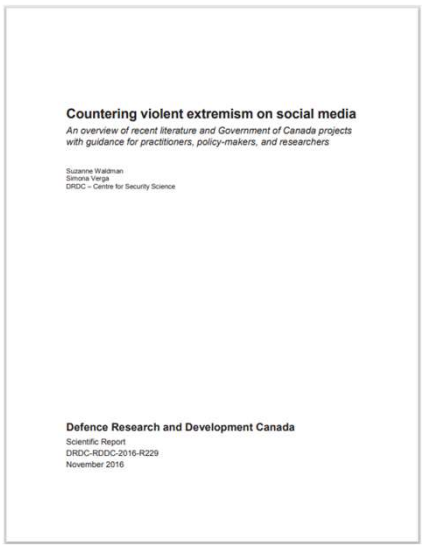
Heliyon

Countering violent extremism using social media and preventing implementable strategies for Bangladesh

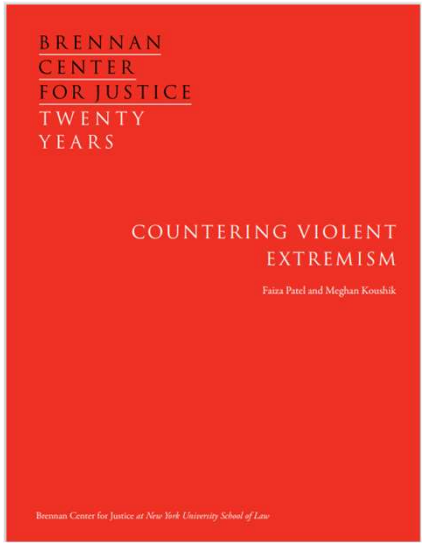
Sajid Amit, Lumbini Barua, Abdulla - Al Kafy


Countering violent extremism on social media

An overview of recent literature and Government of Canada projects with guidance for practitioners, policy-makers, and researchers

Suzanne Waldman
Simona Verga
DRDC – Centre for Security Science

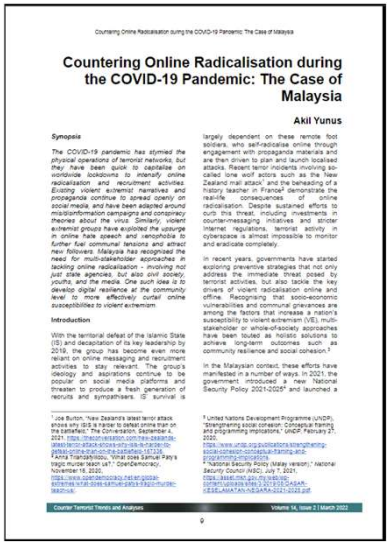
Defence Research and Development Canada
Scientific Report
DRDC-RDDC-2016-R229
November 2016


BRENNAN CENTER FOR JUSTICE TWENTY YEARS

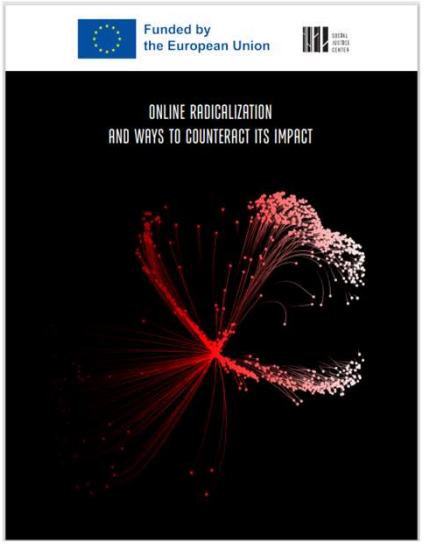
COUNTERING VIOLENT EXTREMISM

Faiza Patel and Meghan Koushik

Brennan Center for Justice *at New York University School of Law*


Countering Online Radicalisation during the COVID-19 Pandemic: The Case of Malaysia

Akil Yunus

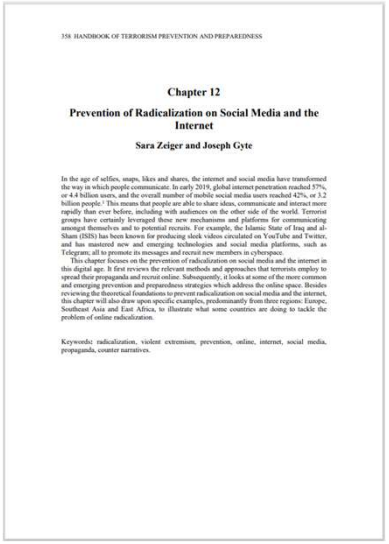

Funded by the European Union

ONLINE RADICALIZATION AND WAYS TO COUNTERACT ITS IMPACT


14

Countering Terrorism and Violent Extremism at Facebook: Technology, Expertise and Partnerships

Erin Saltman


Chapter 12

Prevention of Radicalization on Social Media and the Internet

Sara Zeiger and Joseph Gyte

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3. TECHNOLOGIE EN (GEWELDDADIG) EXTREMISME

How technology can fight extremism and online harassment (Yasmin Green)
https://www.ted.com/talks/yasmin_green_how_technology_can_fight_extremism_and_online_harassment?subtitle=en&geo=fr

How young people join violent extremist groups and how to stop them (Erin Saltman)
https://www.ted.com/talks/erin_marie_saltman_how_young_people_join_violent_extremist_groups_and_how_to_stop_them?subtitle=en&geo=fr

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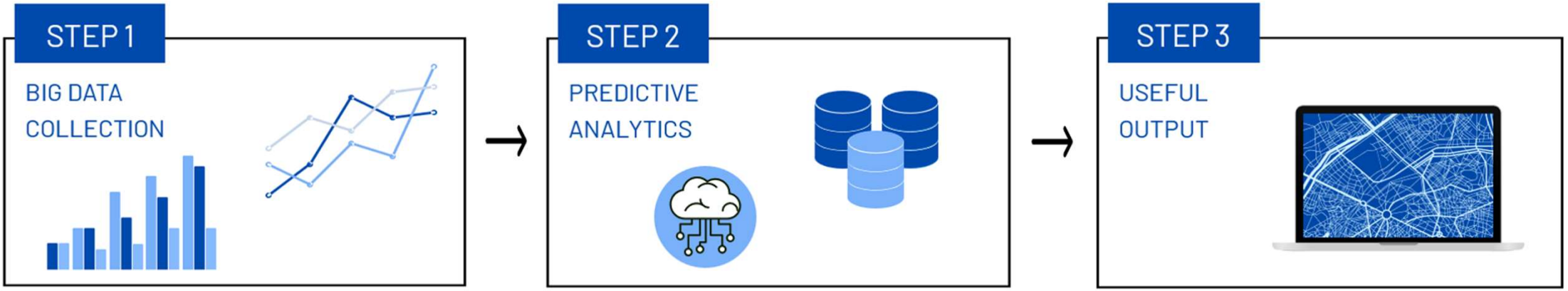
5. BIG DATA POLICING



Bijvoorbeeld:

- Gegevens uit politiedatabanken
- Sociaaleconomische gegevens
- Gelegenheidskenmerken
- Nieuwe technologieën

Voorspellen waar en wanneer er een verhoogd risico is op nieuwe criminaliteit.

→ efficiënter en proactiever inzetten van politiemiddelen
→ daling van criminaliteit

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5. BIG DATA POLICING

BIGDATPOL

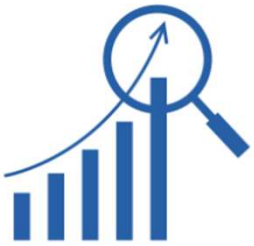
Towards an evidence-based model for big data policing

BIGDATPOL

Doel = evidence-based model voor big data policing ontwikkelen

Phase 1: Inventory

- Build an open access database of big data policing initiatives
- Set up an international expert network
- Develop a typology of the existing methods
- Sample relevant cases, and original data collection



Phase 2: Analysis

- **Track 1**
  Statistical methodological analysis
- **Track 2**
  Criminological and economic analysis
- **Track 3**
  Legal and ethical analysis

Phase 3: Integration

- Resulting in an evidence-based big data policing model
- Tested by (quasi-)randomised controlled trials across various European cities

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5. BIG DATA POLICING

BIGDATPOL

Towards an evidence-based model for big data policing

Onderzoek UGent analyseert criminaliteit in 19 politiezones met artificiële intelligentie om misdaad te voorspellen

Foto: Getty

Wetenschappers van de Universiteit Gent beginnen na de zomer aan het project BIGDATPOL. Ze gaan de criminaliteitscijfers van 19 Vlaamse politiezones uitgebreid analyseren met behulp van artificiële intelligentie om zo patronen te ontdekken. Vanaf het najaar krijgen de zones ook voorspellingen op maat, die moeten helpen om misdaden te voorkomen.

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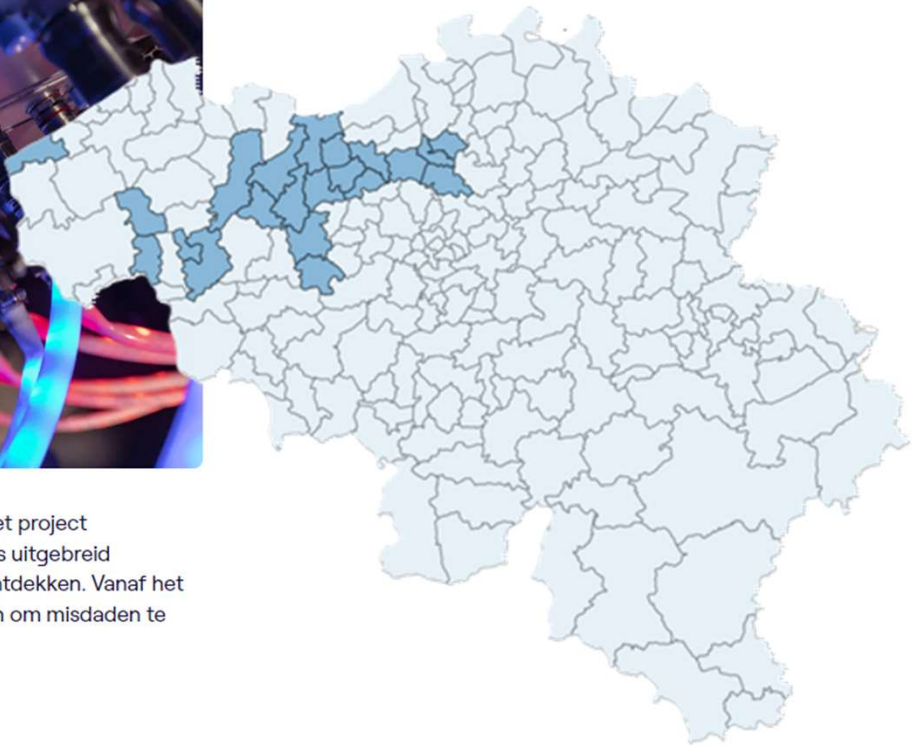

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5. BIG DATA POLICING

TOEPASSING OP RADICALISERING EN EXTREMISME?

Real Time Big Data Analytics for Predicting Terrorist Incidents

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***Abstract*—In recent decades, terrorist groups expanded their reach and their attacks are more frequent and more lethal. In this research, we developed a set of methodologies and a software system to address various aspects of terrorism. We developed a real time terrorist incidents data collection system in [14] to gather terrorist incidents data from reliable sources. Using the incidents data, we developed a risk model to calculate the terrorism risk level of different locations. Then, we proposed a set of rules along with our risk model to predict future terrorist incidents. Finally, we developed a novel risk projection model to project the terrorism risk levels into the near future. The results show emerging patterns of terrorist attacks. Our prediction method provides high precision values of up to 96.30% , and high recall values of up to 100%. Furthermore, our risk projection model provides accurate risk values. Our methodologies can assist terrorism analysts to improve counter-terrorism measures and potentially prevent future attacks.**

I. Introduction

Terrorism is a complex and evolving phenomenon. In the past few decades, we witnessed an increase in the number of terrorist incidents in the world. The security and stability of many countries is threatened by terrorist groups. Even though the probability of high lethal terrorist incidents in the United States is low, foreign terrorist groups such as ISIS and Al-Qaeda are growing at an alarming rate. Perpetrators now use sophisticated weapons and the attacks are more and more lethal. Currently, terrorist incidents are highly unpredictable which allows terrorist groups to attack by surprise. The unpredictability is partly due to the lack of real time data and adequate risk analysis methodologies. To narrow the gap between terrorist groups and counter-terrorism experts, it is imperative to develop novel and proven methodologies along with sophisticated systems specially designed to solve terrorism related issues.

II. Related Work

Many efforts have been made to collect and analyze terrorism incident data around the world. We describe a few of them in this section.

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Kengpol et al. [11] proposed a risk assessment method to predict the distribution range radius of terrorist incidents. The authors proposed a Risk Assessment Radar Chart to prevent Improvised Explosive Device (IED) terrorist incidents. The IED incidents data from 2007 to 2013 in the capital district of Yala province, the southern part of Thailand, were collected and used in the proposed methodology as a case study. The results are distance based incident predictions which specify in kilometer radius and number of days, the possible insurgencies. The model was tested against real life events and has a precision of prediction rate of approximately 50.41% (distance in kilometer) and 43.90% (in number of days).

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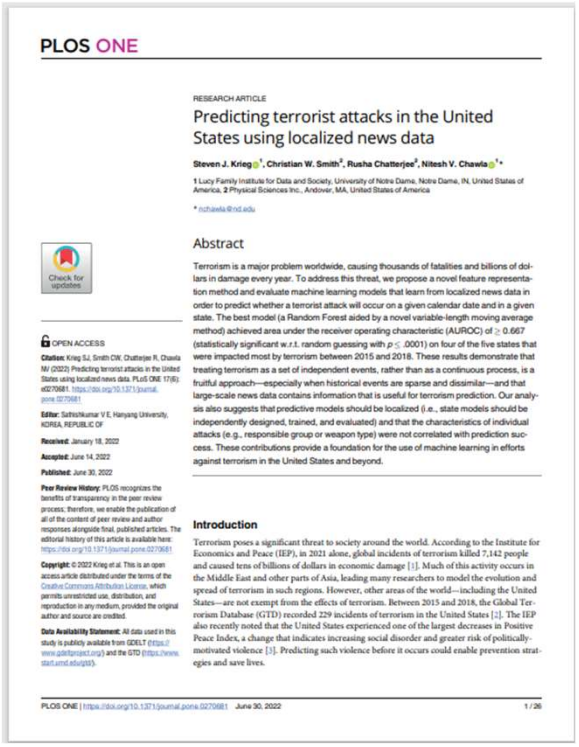

PLOS ONE

RESEARCH ARTICLE

Predicting terrorist attacks in the United States using localized news data

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Data Availability Statement: All data used in this study is publicly available from GDELT (https://www.gdeltproject.org/) and the GTD (https://www.start.umd.edu/gtd).

Abstract

Terrorism is a major problem worldwide, causing thousands of fatalities and billions of dollars in damage every year. To address this threat, we propose a novel feature representation method and evaluate machine learning models that learn from localized news data in order to predict whether a terrorist attack will occur on a given calendar date and in a given state. The best model (a Random Forest aided by a novel variable-length moving average method) achieved area under the receiver operating characteristic (AUROC) of $\geq$ 0.667 (statistically significant w.r.t. random guessing with $p \leq .0001$) on four of the five states that were impacted most by terrorism between 2015 and 2018. These results demonstrate that treating terrorism as a set of independent events, rather than as a continuous process, is a fruitful approach—especially when historical events are sparse and dissimilar—and that large-scale news data contains information that is useful for terrorism prediction. Our analysis also suggests that predictive models should be localized (i.e., state models should be independently designed, trained, and evaluated) and that the characteristics of individual attacks (e.g., responsible group or weapon type) were not correlated with prediction success. These contributions provide a foundation for the use of machine learning in efforts against terrorism in the United States and beyond.

Introduction

Terrorism poses a significant threat to society around the world. According to the Institute for Economics and Peace (IEP), in 2021 alone, global incidents of terrorism killed 7,142 people and caused tens of billions of dollars in economic damage [1]. Much of this activity occurs in the Middle East and other parts of Asia, leading many researchers to model the evolution and spread of terrorism in such regions. However, other areas of the world—including the United States—are not exempt from the effects of terrorism. Between 2015 and 2018, the Global Terrorism Database (GTD) recorded 229 incidents of terrorism in the United States [2]. The IEP also recently noted that the United States experienced one of the largest decreases in Positive Peace Index, a change that indicates increasing social disorder and greater risk of politically-motivated violence [3]. Predicting such violence before it occurs could enable prevention strategies and save lives.

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Big data-based prediction of terrorist attacks ☆

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The shadow of terrorist attacks has loomed globally since the 9–11 attacks. Although countries have stepped up their efforts to prevent and control them, terrorist attacks have not been far from people's lives. The Global Terrorism Database (GTD) shows that a total of 25,903 terrorist attacks took place around the world between 2000 and 2012; the average is approximately 2000 per year and more than 5 times per day [1]. There are many underlying correlations and laws in the numbers associated with terrorist attacks. If these hidden phenomena can effectively guide the construction of anti-terrorism early warning systems, they can help solve the difficult problems in counter-terrorism decision-making and conduct regular identification and prediction. This has become a research topic in many fields of informatics, as it improves the risk management and accurate warning of terrorist attacks through the use of classification technology to mine large data about terrorist attacks in depth and minimise the unknown risk of terrorist attacks.

The University of Maryland built the GTD as an open-source collection that includes data sets from the 1970s to 2014 on global terrorist activity. The database has collected and combed approximately 140,000 terrorist incidents worldwide from 1970 to 2014 and includes information about the timing, location, use of weapons and targets, number of casualties, and identifiable responsible parties. The average terrorist attack contains up to 45 messages, where the one with the most has more than 120. GTD provides researchers with comprehensive, reliable, and open-source data, and helps uncover the underlying structure behind terrorist attacks. For example, reference [2] is a data source based on the GTD's listed terrorist attacks in India that analyses the type and number of attacks related to the attack organisation. Reference [3] divides the terrorist attacks in GTD into transnational events and domestic events, analyses and compares the impact of the both, and finds that transnational terrorism will bring more negative impact on a country's economic growth than domestic terrorism.

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5. BIG DATA POLICING

TOEPASSING OP RADICALISERING EN EXTREMISME?

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- Datacollectie systeem: verzamelt in real-time data van nieuwsbronnen (ivm. incident, tijdstip, …)
- Voorspellingsmodel voor terroristische aanslagen obv:
  - Risicomodel
  - Risicoprojectie-model
  - Gewogen risicomodel

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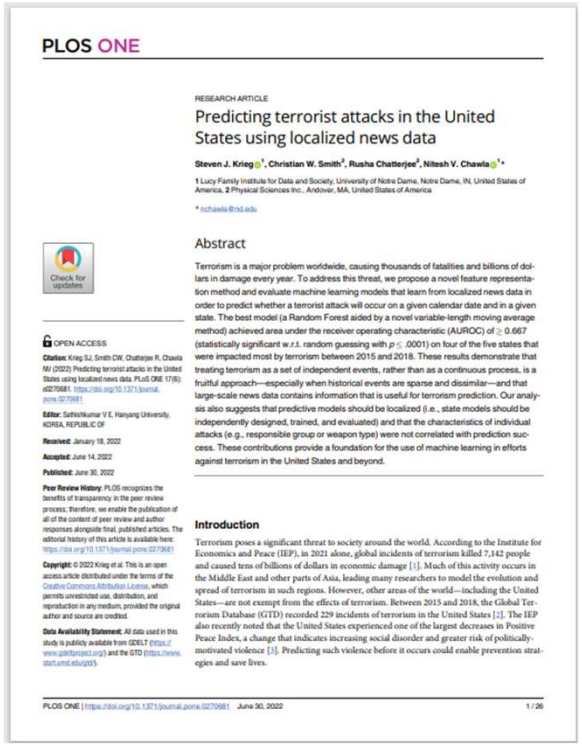
TOEPASSING OP RADICALISERING EN EXTREMISME?



PLOS ONE

RESEARCH ARTICLE

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1 Lucy Family Institute for Data and Society, University of Notre Dame, Notre Dame, IN, United States of America, 2 Physical Sciences Inc., Andover, MA, United States of America

* nchawla@nd.edu

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- Dataverzameling
  - Global Terrorism Database (GTD)
  - Gelokaliseerde nieuwsgegevens uit de VS
- Machine learning-algoritmen
  - Voorspelt of er op dag X en locatie Y een terroristische aanslag zal plaatsvinden

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TOEPASSING OP RADICALISERING EN EXTREMISME?

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  - Data cleaning, integratie, conversie, reductive
- Mixed/hybride classifier en data testing
  - Combinatie van 4 algoritmen om terroristische aanslagen te voorspellen

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BIGDATPOL
Towards an evidence-based model for big data policing

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