TRACY

Brief Summary

The search for leads and evidence, including lawful access to communications data, is the cornerstone of law enforcement investigations and prosecutions, bringing criminals to justice. Law Enforcement Agencies (LEAs) have reported that non-content data (metadata) provided by Electronic communications Service Providers (ESPs), play a determinative role in an investigation or for the prosecution of cases of organized crime and terrorism.

The proposed TRACY solution is an innovative digital forensic and investigation platform to identify suspects (in relation to time and space) of serious organized crimes and terrorism in dense urban areas. TRACY will apply advanced ML algorithms on Non Content Data (NCD) provided by ESPs.

The aim of TRACY is to significantly advance the process of LEAs investigations and prosecutions and to provide further identification of persons for whom there was no suspicion of involvement in a terrorist act or serious crime prior to the evaluation and should therefore be further examined by the competent authorities (Intelligence Led Policing (ILP).

Our newsletter is published twice a year, offering updates on the latest news and advances of the project!

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Latest News and Updates

TRACY Review Meeting

The TRACY project held its Mid-term Review Meeting in Brussels on 12th June 2024, hosted by European Health and Digital Executive Agency (HaDEA). This meeting provided an opportunity to present the project's progress over the past year, interact with the panel of reviewers, and set strategic goals for the next phases. Key discussions included updates on work packages, initial demonstrations, and upcoming initiatives, all aimed to promote the

adoption of AI tools from LEAs and improve their literacy regarding challenges stemming from AI.

Figure 1 TRACY Mid-term review meeting in Brussels

Finalisation of TRACY installation on HPOL and Pilot phase initiation

The Tracy Platform (TPL) is a computing platform, designed for usage on all analytics-related problems of the project, centred around open-source tools and material. TPL) integrates hardware and software designed to support Law Enforcement Agencies (LEAs) in their tasks using cutting-edge analytical methods. Its primary aim is to create a uniform operational framework that facilitates the delivery of analytical services for crime investigations. As part of the TRACY initiative, we envision TPL progressing from its initial version 1.0 to a more sophisticated and customized solution that meets the specific requirements of its users and their organizations. Versions of the platform, nicknamed TPL2 (Test) and TPL3 (Production) equipment has been delivered to HPOL premises.

TRACY Training Workshops

Workshop #1: Legal - ethical issues and AI for LEAs

The TRACY Legal - ethical issues and AI workshop was centered around the use of artificial intelligence (AI) to support the law enforcement agencies' (LEA) investigations. As today's crimes become more and more complex, including emerging technologies in crime detection becomes a necessity. On the other hand, the systems used by LEA must be safe and robust and thus adhere to requirements set by the new AI Act. For these reasons, Timelex organised this workshop, which first set the scene to then give space for discussion and exchange of knowledge.

Workshop #2: HPOL Training on TRACY Platform:

27/9/2024 (930AM @ HPOL)

On September 27th an in-person training session was conducted for HPOL on the TRACY Platform, organized by Performance Technologies. During this session, participants from HPOL familiarized themselves with TRACY Platform, gaining a deeper understanding of its components and the workflows designed to facilitate its use. The training served as essential preparation for upcoming pilot cases, ensuring the LEA analysts were well-equipped to engage with the platform effectively. The session also fostered an engaging discussion, with participants sharing valuable feedback on potential improvements, contributing to the platform's refinement and alignment with user needs.

Past Events

TRACY participated in the **5th EAI International Conference on Digital Forensics & Cyber Crime** international conference to present a joint work between PT and IDIAP on **Detecting Criminal Networks via Non-Content Communication Data Analysis**.

Performance Technologies represented TRACY project in the **InfoCom World 2024, "Digital Greece: Time for a Leap!"** having a presentation on the latest achievements of the project in the context of implementing TRACY methodologies in LEAs investigation techniques.

Publications

ARTICLE IN JOURNAL

Avgerinos, N., et al., 2024, **Innovative Digital Forensic and Investigation Tools for Law Enforcement: The EMPOWER & TRACY Approach**. In: Maglogiannis, I., Iliadis, L., Karydis, I., Papaleonidas, A., Chochliouros, I. (eds) Artificial Intelligence Applications and Innovations. AIAI 2024 IFIP WG 12.5 International Workshops. AIAI 2024. IFIP Advances in Information and Communication Technology, vol 715. Springer, Cham.80-93.

CONFERENCE PROCEEDINGS

Rangappa, P., Muscat, A., Sanchez, L., Motlicek, P., Antonopoulou, M., Fourfouris, I., Skarlatos, A., Avgerinos, N., Tsangaris, M., 2024, **Detecting Criminal Networks via Non-Content Communication Data Analysis**, 5th EAI International Conference on Digital Forensics & Cyber Crime.

Project Achievements

Between M13 and M18 of the project lifetime the following deliverables have been delivered.

Deliverable No.	Title
D3.2	Annotate Demonstration Dataset
D3.3	Athens demonstration
D4.1	TRACY Platform (Pre-Prod, Production and Demonstration Appliances)
D5.5	Training delivery and evaluation report 1
D6.4	Dissemination, communication and exploitation activities Report 3
D6.11	Legal - ethical issues and AI for LEAs

TRACY Consortium

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