



INSPECTr Project

Intelligence Network & Secure Platform for Evidence Correlation and Transfer

Quarterly Newsletter: Second Edition

Edition: June 2021

Dear Colleagues,

Welcome to the INSPECTr project newsletter, a guide to our latest work and news.

INSPECTr Principal Objectives



To develop a shared intelligence platform and a novel process for gathering, analysing, prioritising, and presenting key data to help in the prediction, detection, and management of crime in support of multiple agencies at local, national, and international level. This data will originate from the outputs of free and commercial digital forensic tools complemented by online resource gathering. The final developed platform will be freely available to all Law Enforcement Agencies (LEAs).

INSPECTr Newsletter First Edition

In our [first edition of the INSPECTr Newsletter](#) we set the INSPECTr project in context, introduced the main features of the INSPECTr platform and elaborated on the project's involvement with LEA Communities whose insight and involvement from the outset is key in the development of the INSPECTr platform and throughout its development to eventual adoption.

INSPECTr Newsletter Second Edition

In this, our second edition, you will find the latest updates on our last quarter activities, information about upcoming events, and a number of Ethics blogs written by our Consortium Partner, Trilateral Research.

Ethical Oversight of the INSPECTr Project



Ethical oversight of the project has been fundamental to its development to date and will continue to be so for the project's duration. This has is reflected in the large number of Ethics deliverables that fell due in the early stages of the project, instilling and embedding an *Ethics and Privacy by Design* approach. We have invited our Ethics Consortium Partner, Trilateral Research, to provide some insights arising out of their activities to date in the INSPECTr project which follow below.

1) Complying with ethical and legal standards in the INSPECTr project

As a project focused on researching data-analysis tools and data-exchange infrastructure to help improve law enforcement agencies in their daily work, it is imperative that the INSPECTr project abides by the standards of research ethics, and data protection. To ensure this, the European Commission (EC) provided a number of ethics requirements for us to demonstrate our compliance with such standards. We have worked hard to ensure compliance with these standards, and we have had a positive response from the EC on our submissions to them.

A key part of Trilateral's work is the ethics and data protection monitoring of the Living Lab research. This is where the tools developed in the INSPECTr project will be tested by our law enforcement partners. The work of partners includes completing data protection impact assessments to evaluate and mitigate risks to the rights and freedoms of data subjects relating to the processing of personal data. We have also worked to determine the most appropriate data processing relationships between Data Controllers, Data Processors, and Joint Controllers.

The impact of Brexit on international data transfers between the EU and UK-based partners has been an additional concern for the project. Following the expiry of transition arrangements, the EU has agreed an adequacy decision, meaning that the UK's data protection regime is judged to provide an adequate level of protection for EU data-subjects. This provides for a continuation of smooth data transfers between all partners in the project. However, bearing in mind recent judicial decisions, the partners are implementing appropriate back-up options in the event that the adequacy decision is subject to a successful legal challenge.

2) The ethical approach to research in the INSPECTr project

The INSPECTr project has opted to take ethics-by-design and privacy-by-design approaches to the development of the INSPECTr tools and platform, that are managed by Trilateral. This means that ethical and privacy issues are considered at all points of the INSPECTr project, and choices are made to follow outcomes are as ethical and privacy-respecting as possible. A key part of this is sensitising the consortium to ethical and privacy issues that could arise during projects like INSPECTr; to do this, we held a series of webinars, along with continuous communication between ethics and technical partners, to highlight particular issues to technical partners. A key result of these discussions was coming to an understanding that balanced the potential technical benefit of using personal data to train and test machine learning tools with the privacy and data protection concerns that such processing entails, it was agreed that technology research should take place using as little personal data as possible, and only where necessary to fulfil the research purposes. Major work also took place around the most appropriate legal basis for law enforcement partners to use when testing the INSPECTr tools. It was decided that law enforcement partners should act under a legal regime that

treats them as researchers and should not be engaged in processing of data from ongoing investigations. This helps to draw a clear line between research and operational policework.

Another crucial aspect of the ethics and privacy-by-design approaches is the development of a series of recommendations to mitigate risks and enhance opportunities related to ethics, legal, and societal impacts. These were co-developed through discussions and workshops with technology and ethics experts. These are being implemented across the remainder of the INSPECTr project through collaboration with the technical partners to ensure that the final results of the project are ethical, privacy respecting, legally compliant, and societally acceptable.

Further, as technology advances at a rapid rate, so do ethical, legal, and societal concerns associated with it. So, Trilateral engages in continuous horizon scanning for issues that could affect the project itself, or adoption of the tools after the project. Recently, this work has focused on the European Commission's proposed AI Regulation. The project wants to understand the nature and scope of the proposed Regulation to try and 'future-proof' the tools ahead of changes to the legislative environment. Happily, Trilateral already planned to incorporate many of the key aspects of the proposed Regulation into the INSPECTr project, albeit in a slightly different format. Consequently, Trilateral will be monitoring the development of the proposed Regulation and adapting its approach to minimise barriers to adoption of the INSPECTr tools in future.

3) INSPECTr's Gender and AI workshop



As part of the Ethics-by-Design approach being taken by the INSPECTr project, the partners held an ethics workshop on Gender and AI during June 2021. This was attended by both ethical and technical partners, along with external experts. Attendees worked together to discuss gender-related issues that are relevant to both the project and the platform that is

being researched, and to develop design solutions for these issues. Gender is a sometimes overlooked issue in data science projects that can have significant negative impacts. Not incorporating gender perspectives can mean that important issues are missed. For example, a gender bias in the data used to train machine learning algorithms, or amongst the members of a project, could mean that issues affecting different gender groups are not considered, or are missed.

The workshop discussed the impacts that can occur when gender is considered as an unchangeable binary category, how this can create harm for both people who are mis-categorised and law enforcement dealing with potential inaccurate data. This led to consideration of where such issues could be avoided or dealt with during development of the INSPECTr tools. Further, with respect to the tools being researched, a major point of discussion looked at whether data used for training machine learning tools could have gendered effects, and what some of the impacts could be. It was discussed how the project has already done a lot of pre-existing work to deal with bias issues in tools to ensure that they give more accurate results than if gender was not considered. Further discussions covered topics such as whether the project should include or exclude image search tools that used emotion detection, and biases associated with particular datasets, as noted by external expert Dr Allison Gardner, who joined the discussion. Looking forward, the project is taking into account work on bias by the IEEE and ISO, and looking at bias audits for tools and algorithms that are developed.

Project Activities and Events between April 2021 – June 2021

INSPECTr Project Meetings



- INSPECTr Monthly Project Meetings
- INSPECTr Weekly Technical Meetings
- INSPECTr LSG Monthly Meetings
- Ethics Work Package Monthly Meetings
- INSPECTr Project General Assembly

INSPECTr Monthly Project Meetings

These continue to be held monthly where an overview of the activities undertaken in each work package is reported on by work package leaders to the Consortium.

INSPECTr Weekly Technical Meetings

Weekly technical meetings are held in order to support the finer detail of the project development, give close attention to particular issues, and bring about resolution so that the project continues to develop on track between the monthly meetings.

INSPECTr Law Enforcement Steering Group (LSG) Monthly Meetings.

These meetings provide a forum for collaboration between our law enforcement, technical, and ethics partners. It is of primary importance that that technical features under development in the INSPECTr platform are developed in a way that is relevant to and mirror the LEA investigative workflow. An ethical oversight at these meetings ensures that privacy and data protection requirements from applicable legal frameworks are observed, developed, and embedded.

Ethics Work Package Monthly Meetings

These meetings are held to reinforce the project's Ethics-by-Design approach and allow time for deeper consideration and exploration of ethical issues that arise.

INSPECTr Project General Assembly 15-16, June 2021

The first INSPECTr Project General Assembly was held on April 15th and April 16th, 2021. This two-day meeting was held online due to the ongoing COVID-19 pandemic. All project partners were in attendance and the meeting agenda allowed ample time for partners to present on progress made to date, and for questions and answers to be facilitated.

Overview of Day 1 - The focus of the morning session of Day 1 of the PGA was an overview of the current status of the project implementation, the project management and financial management reporting, and a report on the Ethics deliverables submitted to date and their related activities. Throughout the remainder of Day 1 work package leaders presented their report within each work

package supported by Consortium members involved in specific internal tasks within the work package. Presentations focussed on what had been achieved to date, the current status of development, and the plan for progression into the next quarter.

Overview of Day 2 - The focus of the morning of Day 2 of our PGA was very much on our Law Enforcement partners. For the past year INSPECTr LEAs have been engaged in working on the task of developing mocked data use cases with different scenarios that mirror real life investigations and also incorporate and match all the required technological features of the INSPECTr platform. These use case scenarios, and their stories, were presented to the Consortium.

This has been a huge challenge made even more difficult by the fact that the INSPECTr platform development is still a work in progress, however, bespoke use cases have now been developed by our LEA partners to reflect their current experiences and investigative priorities (terrorism, fraud, and child sexual abuse investigations). These scenarios and their related evidential material will be used to test the platform during the iterative Living Lab exercises that have been scheduled throughout the project. The mocked use cases, with mocked data, are being created and used in order to comply with restrictions around access to operational data. Experimentation on these is due to start in September 2021.

In the afternoon of Day 2 the first live demonstration of the INSPECTr Living Lab was presented illustrating and demonstrating the current features of the platform. LEA partners had assisted in establishing the high-level requirements of the platform and the key performance indicators to measure the success of the project. A discussion period followed this demonstration allowing engagement between the LEA and technology partners regarding platform function, usability, and features. Feedback offered by the LEA partners will be incorporated into the ongoing design and development to the platform.

INSPECTr Internal Workshops

INSPECTr Internal Workshop – June 2021

In June 2021 an Ethics Workshop was hosted by our Ethics lead in the project, Trilateral Research. As part of the Ethics-by-Design approach being taken by the INSPECTr project, the partners held an ethics workshop on Gender and AI which was attended by both ethical and technical partners, along with external experts. Attendees worked together to discuss gender-related issues that are relevant to both the project and the platform that is being researched, and to develop design solutions for these issues.

A fuller account of this workshop can be found earlier in this Newsletter as part of our three Ethics blogs.

Webinars, Training and Conferences for INSPECTr Dissemination

We are investigating the possibility of contributing to a number of webinars with LEA audiences throughout the project with the majority of these being used to demonstrate the functionality of the INSPECTr platform, as it matures towards the end of the project.

The purpose of these webinars will be to introduce LEA stakeholders to the functions and capacities of the INSPECTr platform and tools and encourage their interest and eventual uptake by providing them for free with integration guidelines and related training material.

We also plan to present the findings of the project at major European events for LEAs.

INSPECTr Stakeholder Workshop – 20, May 2021

This external stakeholders workshop provided an overview of the INSPECTr project to stakeholders from 8 countries and 3 international agencies. While we intend to disseminate more information for the general stakeholder community in the next phase of the project, for the purposes of this workshop we were seeking valuable input of LEA with extensive experience in device triage or preliminary analysis, digital forensics, online intelligence gathering, or data analytics.

After a Q&A session, participants were invited to complete a survey on topics related to current investigative practices and challenges, our proposed improvements, and the training needs of law enforcement. The results of this survey will be used to measure the impact of the project's deliverables and shape the direction of upcoming development tasks.

ILEANET Public Project Public Workshop on “Standardisation in Security Research” 9-11, June 2021

In June 2021 Dr Ray Genoe, INSPECTr Coordinator, (UCD Centre for Cybersecurity and Cybercrime Investigation) and Fabrizio Turchi, INSPECTr Project Partner (Institute of Legal Informatics and Judicial Systems of the National Research Council of Italy) presented to stakeholders on INSPECTr Standardisation at the ILEANET Public Project Public Workshop on “Standardisation in Security Research”.

INSPECTr was introduced to stakeholders as an H2020 project that aims to develop a free platform for LEAs to conduct cybercrime investigations, discover links with other cases and transfer evidence under legal compliance with participating nodes. With these aims and objectives comes the challenge of Standardisation, with a common format being required for data homogenisation, data discovery (linked cases) and data exchange. The INSPECTr standard is CASE (The open-source Cyber-Investigation Analysis Standard Expression) which provides a standard language (ontology) for representing information collected, analysed, and exchanged during investigations involving digital evidence. The purpose of adopting the CASE standard in INSPECTr is to make interoperability between different tools and organisations possible, automate normalisation and combination of differing data sources, and ensure all analysis results are traceable to their sources i.e. Chain of Evidence.

Although some challenges have presented themselves in the process of adoption and integration of this Standardised approach it is believed to be key to the project for:

- integrating and validating the tools LEA are using
- providing unified, even federated, data analytics
- evidential integrity, secure and reliable exchange
- providing interoperability with other projects/platforms
- encouraging vendor compliance.

Future External Stakeholder Activities

INSPECTr aims to continually engage with LEAs throughout the development and testing phase of the project, not only with its own nine LEA partners, but also with a wider community of stakeholders. For this reason, there will be a focus on increasing dissemination activities with the wider general stakeholder community during the next phase of the project.

We have currently submitted abstracts for consideration to the Annual Europol-INTERPOL Cybercrime Conference and plan to submit similarly to the FEF 2021 Conference (Forensic Experts Forum – Online Conference) 22-26, November 2021 hosted by Europol.

We have also '*saved the date*' for the Octopus Conference, Strassburg, being held on 16-18, November 2021 by the Council of Europe. We look forward to providing updates on such activities in a later Newsletter.

INSPECTr Consortium Attendance at Conferences and Workshops

- External Stakeholders Workshop - 20, May 2021.
- ILEANET Public Project Public Workshop on “Standardisation in Security Research” - 9-11, June 2021.
- Cyber Ireland Workshop for SMEs - 10, June 2021.
- CERIS - FCT Workshop on Digital Forensics – 15, June 2021.

Forthcoming Events

- INSPECTr Project Mid-Term Review 2, July 2021.
The INSPECTr project mid-term review will take place on Friday 2nd July 2021.
- INHOPE Summit 2021 - September 21-22, 2021.
Members of the INSPECTr project will be attending this summit, the theme being “**Digital First Responders**”.

Closing

We look forward to updating you further in October 2021 with our third edition of the INSPECTr Newsletter. In the interim, communications from our readers are welcome and if you wish to contact us or subscribe to our Newsletter you can e-mail us directly at inspectr@ucd.ie. Further information and updates can also be found on our project website <https://inspectr-project.eu/>.