

Scientific Report for Virtual Workshops (maximum 2 pages)

Improving Forensic Trace Recovery 1-5 February, Lorentz Center @Oort

Scientific

Short description of the aims for the virtual meeting

The aim of the workshop was to lay the groundwork for a scientifically sound, generic, homogeneous, and efficient methodology of forensic trace recovery.

Current forensic methods have an incredible sensitivity. Minute traces, often invisible to the bare eye, allow for a full analysis. Only a few cells yield a full DNA profile; a single fibre suffices to identify the fibre type as well as the dyes used for its coloration; the elemental composition of glass shards smaller than 100µm is now analysed on a routine basis in forensic laboratories.

However, before a forensic expert can examine a trace, it needs to be recovered. Unfortunately, the procedures for recovery of traces are heterogeneous: experts in different forensic disciplines and in different laboratories use different methods. Sometimes, such methods are not compatible, and recovery of one type of trace may destroy other traces. Heterogeneity also hinders scientific studies into the behaviour of traces, accreditation of new technology, and international cooperation.

The workshop participants held a series of small group discussions on the themes of comparing recovery procedures, exploring quality systems and judicial systems, future collaborations and R&D, and considerations for drafting a generic trace recovery procedure. Progress was made, however it was also recognised at the outset that this ambitious, cross-discipline effort would require further work, probably in the form of a follow-on workshop.

Short summary of key moments (key debates, breakthroughs, etc.)

Outcome(s)

One of the key outcomes of the meeting is a general consensus that there was a need for further discussions and work towards harmonizing trace evidence recovery methods, and that no known existing entity was already doing work to this end. This echoed the sentiments of the organizing committee.

Discussions on the techniques to recover traces formed a small part of the workshop. A large part was committed to the motivation to recover a specific trace. This was not foreseen by the workshop committee, but forms a welcome addition. On several occasions we found that the motivation discussion is similar for crime scene investigations and laboratory based investigations.

Other comments

Participants were from police and forensic services of several European Member States, as well as from USA, Canada and Australia and additional European countries. Out of 81 persons invited to the workshop, 67 persons registered and attended.

Organization

Preparation (synchronous and asynchronous strategies – see our *Virtual Workshop Tips & Tricks* document for concept definitions)

Duration of the workshop and time management

The workshop program was scaled down from a week-long in-person event to a three half-day online event due to the pandemic. It was anticipated that five full days online would be unrealistic and unproductive for the participants.

As an input to the workshop small group discussions, participants were asked to complete survey questions on the following topics before the workshop start:

- General Information on participants
- Exploring Trace Recovery Procedures
- Exploring Quality Systems
- Exploring Judicial Systems

The Workshop Organisation Committee agreed on a format of three afternoons, Monday, Tuesday and Friday, focused on discussion groups and the live presentation of new technologies, with the support of a series of a dozen pre-recorded lectures to be viewed by participants beforehand, to inform the discussions. A pause was created between Tuesday and Friday sessions, to allow reflection and maturation of ideas before final discussion groups.

Platform(s) used before and during the workshop

The workshop was hosted by the Lorentz Center, who set up an MS Teams platform. Wonder was used for the coffee breaks and opening mixer. The organizing committee used the SHUTTLE project SharePoint and Teams platforms for preparations and meetings.

Short- and long-term plans for follow-up

In the short term, it is planned to compile a summary of the outcomes of the discussions and to provide them to the participants. The longer-term follow-up involves the planning of a second workshop and/or additional online working sessions to continue the discussions and drafting of a generic trace recovery methodology.

Lessons learned for future virtual events

One of the biggest challenges for the organizational committee was timing. The decision to move to a virtual platform was only made in December, which did not leave us with much time to redesign the program, and to give new instructions to the speakers, whose topics changed slightly to accommodate the shorter program, and who had to provide us with a pre-recorded talk.

Ideally, the speakers would have had a little more time to prepare their talks, and perhaps also a joint online meeting to improve synergy between the presentations. The program also did not have room for discussions about the specific talks, which was critiqued by some of the participants.

The breakout sessions of 5-6 people were by far the most productive part of the workshop, and provided a good boost of increased interaction between the more passive plenary sessions.

Lorentz Center (virtual) Support

Comments/points for improvement for the Lorentz Center team.

Should a workshop be organized by an entity without an existing online platform (SHUTTLE in our case), it could be useful for Lorentz to make available an online tool for organizing meetings and space for sharing document drafts online much earlier in the planning process.

Organizing committee:

Jaap van der Weerd, Netherlands Forensic Institute, Netherlands

Iris Bijker, Amsterdam University of Applied Sciences, Netherlands

Rebecca Bucht, National Bureau of Investigation, Finnish Police, Finland

Jan Grunwald, Bayerisches Landeskriminalamt, Germany

Bas Kokshoorn, Netherlands Forensic Institute, Netherlands