



# Hack the Police 3 outcomes

London and Lincoln, December 2018



# Executive summary

The third incarnation of Hack the Police, Police Rewired's annual hackathon, took place in December 2018 across two locations:

- London (at the [Computacenter Ltd](http://Computacenter.com) offices, led by Lewis Westbury, [Police Rewired](http://PoliceRewired.org)), and
- Lincoln (at Lincolnshire Police HQ, led by Greg Stevenson, [CSCV](http://CSCV.police.uk)).

[Police Rewired](http://PoliceRewired.org) are a group for volunteers who want to build new tools to fight crime. We target small projects with a big impact.

[CSCV](http://CSCV.police.uk) is a national programme supporting digital investigations teams in forces across the country. We bring experts from industry into policing to ensure the best cyber and technical skills are available across the breadth of the UK.

**Hack the Police** is a weekend-long invention marathon, with teams from developer and civic tech communities working with serving police officers and competing to create exciting new projects that tackle a number of issues in public safety.

- [Highlights from Hack the Police 1](#) (2013)
- [Highlights from Hack the Police 2](#) (2017)

**Goals** for Hack the Police 3 fit into a larger strategy for Police Rewired:

- ✓ Hold two events where communities, and developers who have never encountered police before can meet police officers and solve problems together with them.
- ✓ Develop innovative, presentable, solutions to policing problems that could practically be implemented.
- ✓ Build relationships between Police Rewired, CSCV, and police bodies who could potentially trial and support these new technologies, to impact and increase their capabilities.
- ✓ Have tremendous fun and create a buzz about policing, crime fighting and innovation!

The hackathon drew developers and designers from civic-tech communities and groups who do not ordinarily interact with police - and gave those people an opportunity to meet police officers, exchange ideas, and build new tools together. The events generated 16 projects, each demonstrating new solutions to traditional policing problems, described on the following pages.

## Opening presentations

In London, Lewis Westbury opened the event to talks including a [welcome](#) recorded by AC Sir Stephen House.

PC Matthew Folletti and PC Rory Duffin (both [Police Now](#) officers) presented key components of typical and atypical policing work from their own experiences.

Other lightning presentations included evidence from Professor Dainis Ignatans on the value of identifying and protecting repeat victims, a number of other open data sources collated for the hacks, and a large number of ideas submitted by police officers and staff in the lead up to the event.

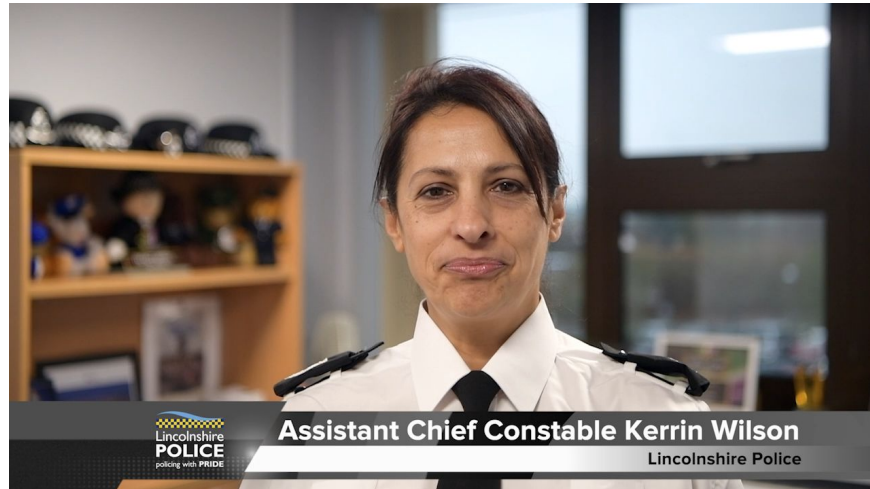
The hack itself began after the opening presentations, and an ideation session held by Kevin Lewis ([Underland](#)) over lunch.

Data made available to the participants is available at: <http://bit.ly/DataSourcesHTP3>



-- AC Sir Stephen House [welcomes](#) participants to Hack the Police 3.

**The Lincoln event** was formally opened by [ACC Kerrin Wilson](#) who welcomed attendees and told them that a hugely important area to her was how we prevent crimes from happening in the digital world, and that events such as Hack the Police will stimulate some great thinking in those areas of policing.



-- ACC Kerrin Wilson welcomes attendees.

After ACC Wilson we heard from Police and Crime Commissioner for Lincolnshire, [Marc Jones](#), followed by an overview of CSCV from Hampshire Constabulary Chief Officer [Tom Haye](#).

Finally we Skyped live with ACC Richard Berry (and his dog!) who was happy to see such a fantastic turnout at the event, and spoke about disruption - disrupting crime, and disrupting the way policing has traditionally been performed.

The event was then officially kicked off by Greg Stevenson and the hackers began their first stretch.

## Categories and judges

At the end of the weekend, teams presented their prototypes to a panel of judges who then awarded prizes in a number of categories.

### London prize categories

- ★ Best new tool or solution for working with the vulnerable
- ★ Most likely to impact and reduce violence
- ★ Most interesting new solution to tackling hate crime
- ★ Best use of ESRI's mapping services
- ★ Best in show

### Lincoln prize categories

- ★ Novel use of a mobile app for a policing purpose
- ★ Novel use of a web app for a policing purpose
- ★ Exceptional project for the reduction of cyber crime
- ★ Best use of ESRI's mapping services
- ★ Best in show

### London judging panel



**PCC Katy Bourne**  
Sussex and Lead for IT



**CI Grace Blake-Turner**  
Police Now and MPS



**Dr Laura Knight**  
IPSCJ



**Charlene-Elise Anderson**  
Amazon Web Services



**Sean McGee & Simon Ingle**  
ESRI

### Lincoln judging panel



**DCC Craig Naylor**  
Lincolnshire Police



**DI Jo Reeves**  
Lincolnshire Police



**Greg Stevenson**  
Lincolnshire Police



**Chris Gardiner**  
ESRI



**Scot Dunn**  
G4S



## Projects

Both hackathons culminated in the presentation of a large number of projects - which were then presented to the judging panels at the end of the event, before prizes and presentations.



**Lincoln.** [Team Cursor](#) demonstrated a conversation bot to handle simple 101 calls to police services.

**Prize-winners: Officer efficiency**



**Lincoln.** [Team Fresh](#) presented PolSe, a tool for collating and managing information in the search for missing persons.



**Lincoln.** [Team Blue Mesh](#) reimagined incident and crime report visualisation - and built a tool to highlight correlation and conflict in reports; and another to drill down into report details.



**Lincoln.** [Exatek Cyber](#) presented a Virtual Reality training scenario for detectives.

They also did some investigation into two other challenges: [tracking the flow of drugs](#), and [locating wanted people](#) with open source techniques.



Lincoln. [Team Nick and Jan](#) built a quiz to test your cyber security and cyber crime knowledge. It's their first hackathon project.

**Prize-winners: Reduction of cyber-crime**

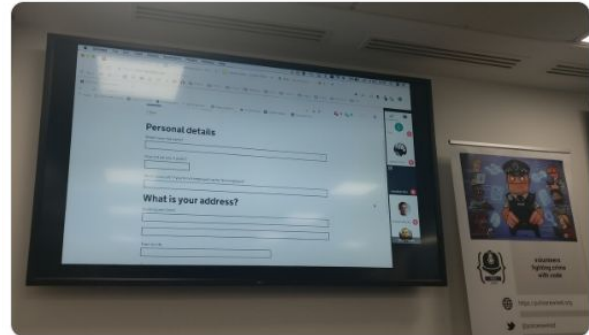


Lincoln. [Team We Got This](#) built a community ANPR app that allows members of the public to contribute to the search for people wanted of serious crimes by putting a phone in their dashboard.

**Prize-winners: Best use of a web app**

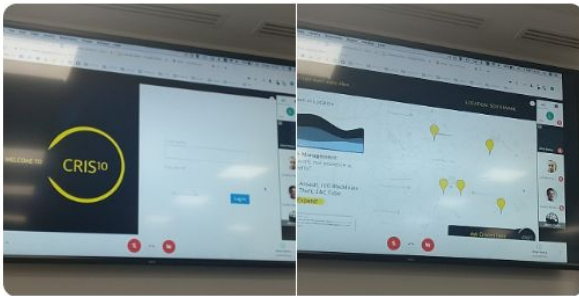


Lincoln. [Cyber Specials from CSCV](#) presented some great new ideas for capturing digital forensics.



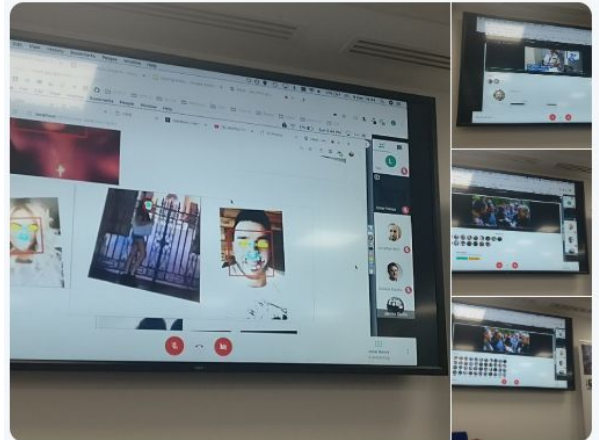
London. [Jonathan](#) presents his work on creating a system for CCTV delivery.

**Prize-winner: Reducing violence**  
**Prize-winner: Best in show!**



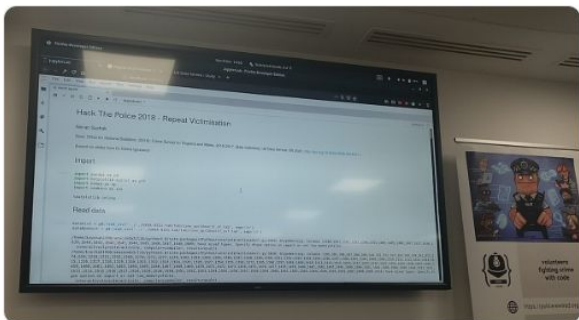
**London. [Team Blue Highlights](#)** present CRIS10 (pronounced 'Kristen') - a tool that can read and summarise crime reports - and even answer questions about them!

**Prize-winner: Working with the vulnerable**



**London. [Umar](#)** presents his work on facial recognition, and shows us how to use it on the reams of publicly available video of events and incidents on YouTube.

**Prize-winner: Tackling hate crime**



**London. [Kieran](#)** built a model to help detect repeat victims in large amounts of data from the Crime Survey of England and Wales. Repeat victims are on the receiving end of a huge proportion of all crime.



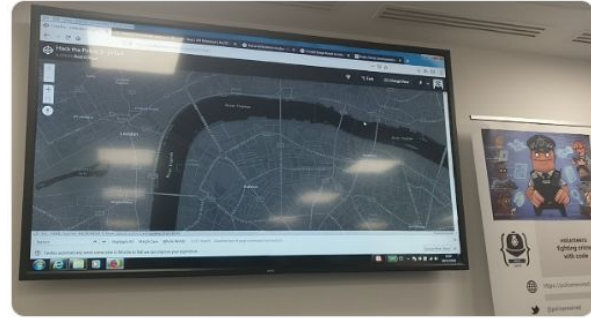
**London. [Team Splatten](#)** present their work preparing images and training a neural network to say useful things about blood spatter patterns and droplets - to assist detectives with crime scene investigation.

**Surprise category winners:  
Best team name!**



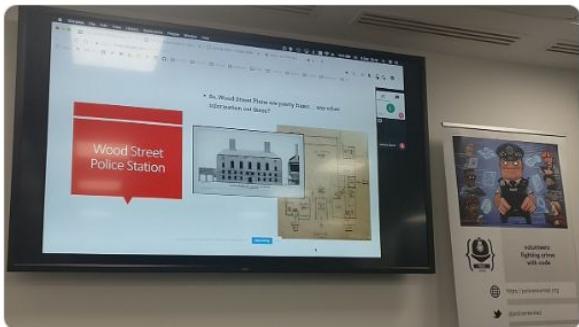


**London.** [Andreas and Shan](#) present their work on Virtual Reality crime reports - where all the relevant pieces of evidence and information are made visible and can be placed around an investigator to explore up close!

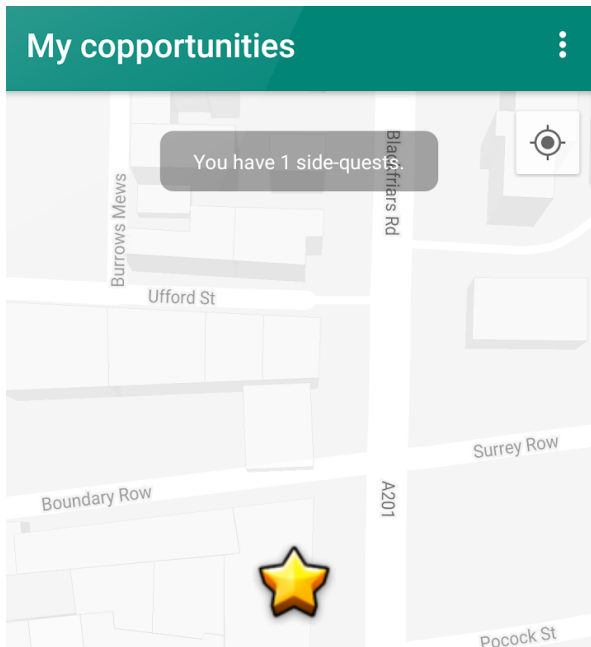


**London.** [Andre](#) presents Interoperator. It's an exploration and demonstration of how powerful analysis tools could be if only data formats were standardised across industries and across police forces.

**Prize-winner: Best use of ESRI maps**



**London.** [James](#) tackled the Building Information Management challenge, and investigated police properties to determine if he could find vulnerabilities or attacks on the buildings, infrastructure or data they held - using only open source information.



**London.** **A Cop on Every Corner** is a project proposed by Alex Blatchford at the MPS. It shows how micro-taskings can be distributed by location, time, and capability to increase police presence. Lewis developed a mobile app to demonstrate the user experience.

## Outcomes

The hackathons generated 16 new projects. Several prize-winning projects are currently being considered for further development and trial.

- **Greg Stevenson** is working to make the Lincolnshire projects available, with initial conversations with the Tech Futures team at Lincolnshire Police.
- **Lewis Westbury** is doing the same for the London projects.

The following summarises early stages of follow up work. Teams are currently being reached to explore their interest and willingness to take their projects further.

**The Lincolnshire Tech Futures team** are considering 3 projects for further development: the **101 Call Handler** from team Cursor, the **Community ANPR Service** from team We Got This, and the **Cyber Knowledge Quiz** from Nick and Jan.

**Amazon Web Services** are considering the development of **Jonathan's CCTV upload system** for members of the public. It stands to save many hours of police time - often spent retrieving CCTV, waiting for it to download, dealing with complicated technology and may eliminate many fruitless journeys made by police officers.

***"Our officers would bite your arm off!"***

*-- Feedback from judge, CI Grace Turner-Blake (Police Now, MPS)*

**The Cop on Every Corner** initiative (initially conceived by Alex Blatchford, MPS) will now be able to use the user experience demo app to illustrate some of its capabilities, and benefits from having had its pros and cons hotly debated during open conversation at the presentations.

**CRIS10 (London), and Blue Mesh (Lincolnshire)** both showed great potential in analysing unstructured text as a part of their prototype. Both are now being offered an opportunity to collaborate with [Clue](#) (featured in the public.io [Police Tech Pioneers](#) report<sup>1</sup>, building a modern investigation toolset and spearheading a new open API initiative). Clue are already investigating the possibility of identifying structured occurrences inside witness statements and crime reports. This cross-pollination of ideas will benefit all policing.

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<sup>1</sup> (also, see p59 for mention of Police Rewired and Hack the Police)

## Next steps

**Police Rewired** will continue the programme of events and hackathons in 2019, promoting and fostering innovation in policing. To do so, we are grateful for funding and support from police bodies and police technology companies who have invested time and resources into our programme. To find out more, please contact Lewis Westbury.

**CSCV** are steadily growing, and now have active cyber specials and volunteer programmes in several forces - placing professional technologists into investigative policing teams. To reach CSCV and find out more, please contact Tom Haye or Greg Stevenson.

## Contacts

- Lewis Westbury, Police Rewired: [lewis@policerewired.org](mailto:lewis@policerewired.org)
- Tom Haye, Hampshire Police & national lead for CSCV: [tom.haye@cscv.uk](mailto:tom.haye@cscv.uk)
- Greg Stevenson, Lincolnshire Police & CSCV: [greg.stevenson@cscv.uk](mailto:greg.stevenson@cscv.uk)

## Websites

- Hack the Police: <https://hackthepolice.com>
- Police Rewired: <https://policerewired.org>
- CSCV: <https://cscv.police.uk>

## Twitter accounts

- [@HackThePolice](https://twitter.com/HackThePolice)
- [@PoliceRewired](https://twitter.com/PoliceRewired)
- [@UKCSCV](https://twitter.com/UKCSCV)

## Support and sponsorship

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## London sponsors



## Lincoln sponsors

